SERVICE MANUAL

WINSTON COLLECTRAMATIC

FRYER

8 CHANNEL MODELS

4 HEAD & 6 HEAD

MANUAL REORDER: LIT. 6710/REV.0/9-91

DANGER

The procedures contained in this manual involve accessing bare electrical terminals and exposure to voltages capable of producing serious injury or death. Any person attempting diagnoisis and/or repair involving removal of panels and/or exposure to live electrical components must be trained or experienced in such service procedures. Disconnect electrical service while performing the procedures listed in this manual.

WINSTON

PRODUCTS COMPANY

2345 CARTON DRIVE . LOUISVILLE, KENTUCKY . 40299 . (800) 234-5286 . FAX: (502)495-5458

INTRODUCTION

This Service Manual is to be used for the following **WINSTON COLLECIRAMATIC FRYERS:**

PRESSURE FRYERS MODEL NO.	OPEN FRYERS MODEL NO.
PFWPC4201 CASJ(or M)	OFWPC4201 CASJ(or M)
PFWPC6201 CASJ(or M)	OFWPC6201 CASJ(or M)
PF46P32 SJ(or M)	OF49P32SJ(or M)
PF56P32 SJ(or M)	OF59P32SJ(or M)
PF46P37 SJ(or M)	OF49P37SJ(or M)
PF56P37 SJ(or M)	OF59P37SJ(or M)
PFWPC4201 SJ(or M)	OFWPC4201 SJ(or M)
PFWPC6201 SJ(or M)	OFWPC6201 SJ(or M)
PFWPC4201 NZSN	OFWPC4201 NZSN
PFWPC6201 NZSN	OFWPC6201 NZSN
PFWPC4201 MASN	OFWPC4201 MASN
PFWPC6201 MASN	OFWPC6201 MASN
PF46P44 SN	OF49P44 SN
PF56P44 SN	OF59P44 SN
PFWPC4201 AUSN	OFWPC4201 AUSN
PFWPC6201 AUSN	OFWPC6201 AUSN
PF46P45SN	OF49P45 SN
PF56P45SN	OF59P45 SN

NOTE: The letter 'J' on the end of the Model Number denotes 208 volts and 'M' denotes 240 volts. To determine the intended market for the above listed model numbers, refer to wiring diagrams listed between pages 18 through 25.

Knowledge of the proper installation, operation, and maintenence procedures is an important step to insure safe operation of any equipment. The instructions in this manual are meant as guidelines for proper service of the **WINSTON COLLECTRAMATIC FRYER.** In accordance with generally accepted products safety labeling guidelines for potential hazards, the following two signal words are used throughout this service manual where applicable:

DANGER: Used to indicate the presence of a hazard which could cause substantial property damage, severe personal injury or death if warning is ignored.

CAUTION: Used to indicate the presence of a hazard which could cause minor property damage or personal injury if warning is ignored.

DANGER: THE PROCEDURES CONTAINED IN THIS MANUAL INVOLVE ACCESSING BARE ELECTRICAL TERMINALS AND EXPOSURE TO VOLTAGES CAPABLE OF PRODUCING SERIOUS INJURY OR DEATH. ANY PERSONS ATTEMPTING DIAGNOSIS AND/OR REPAIR INVOLVING REMOVAL OF PANELS AND/OR EXPOSURE TO LIVE ELECTRICAL COMPONENTS MUST BE TRAINED OR EXPERIENCED IN SUCH SERVICE PROCEDURES. DISCONNECT ELECTRICAL SERVICE WHILE PERFORMING THE PROCEDURES LISTED IN THIS MANUAL.

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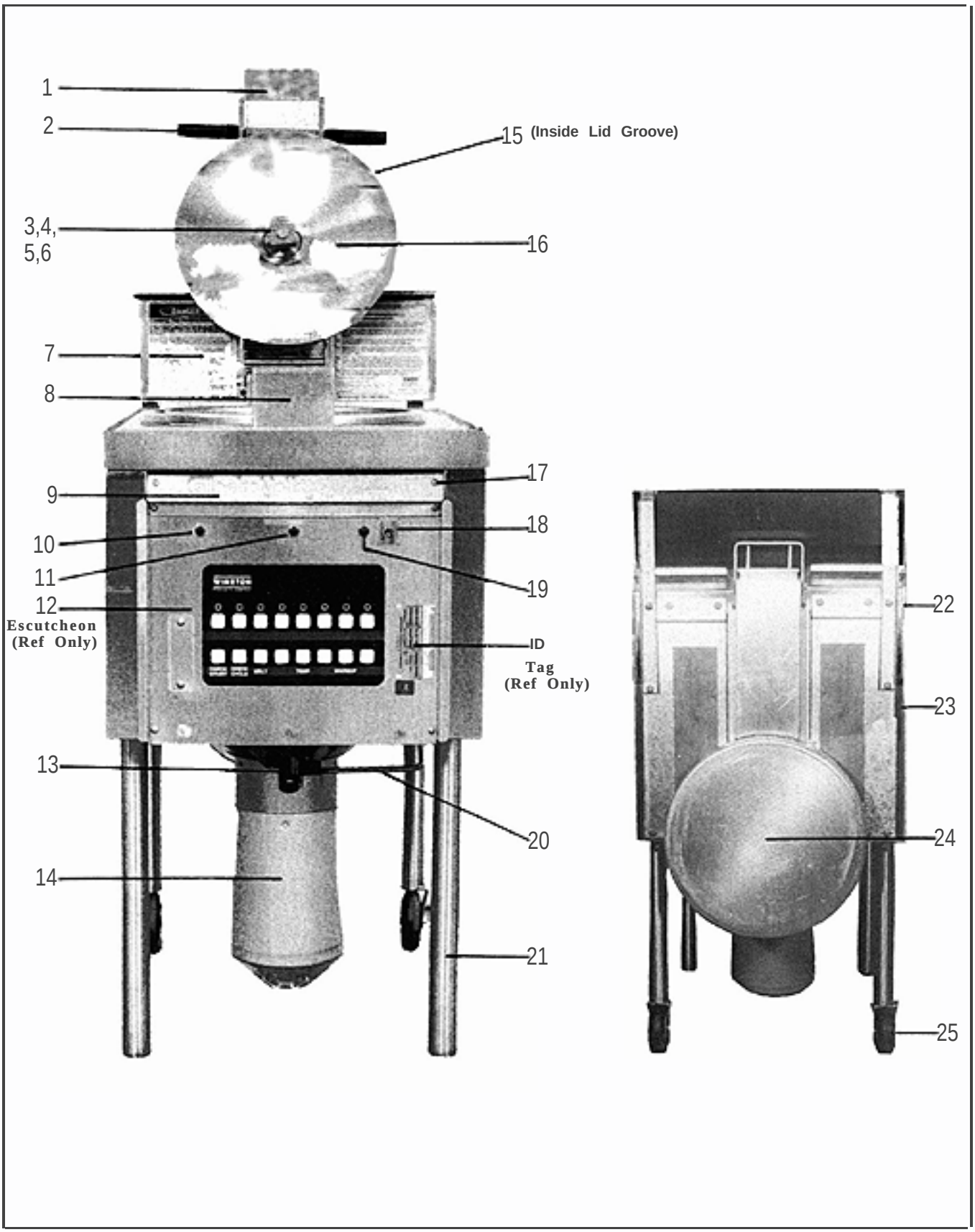
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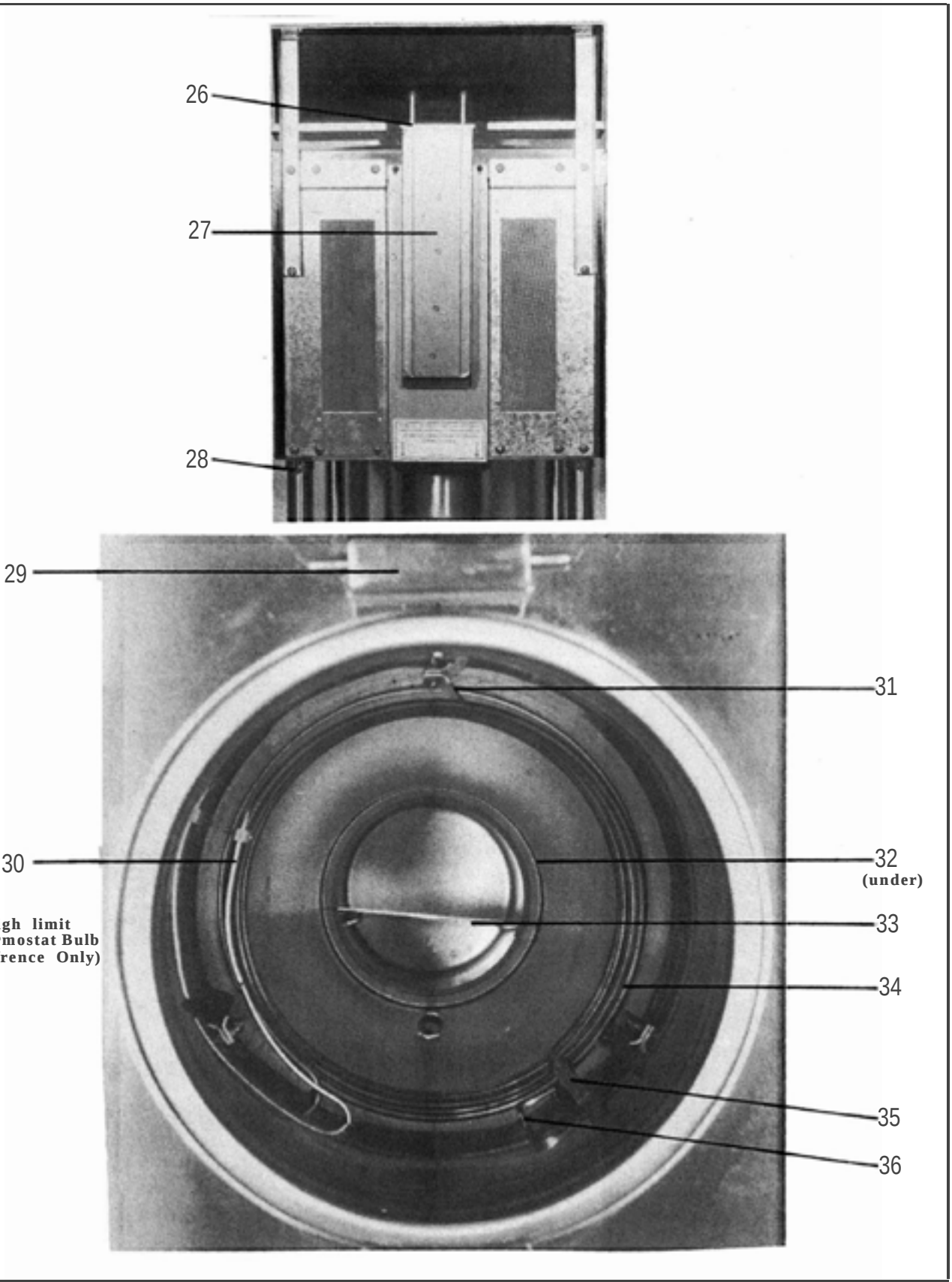
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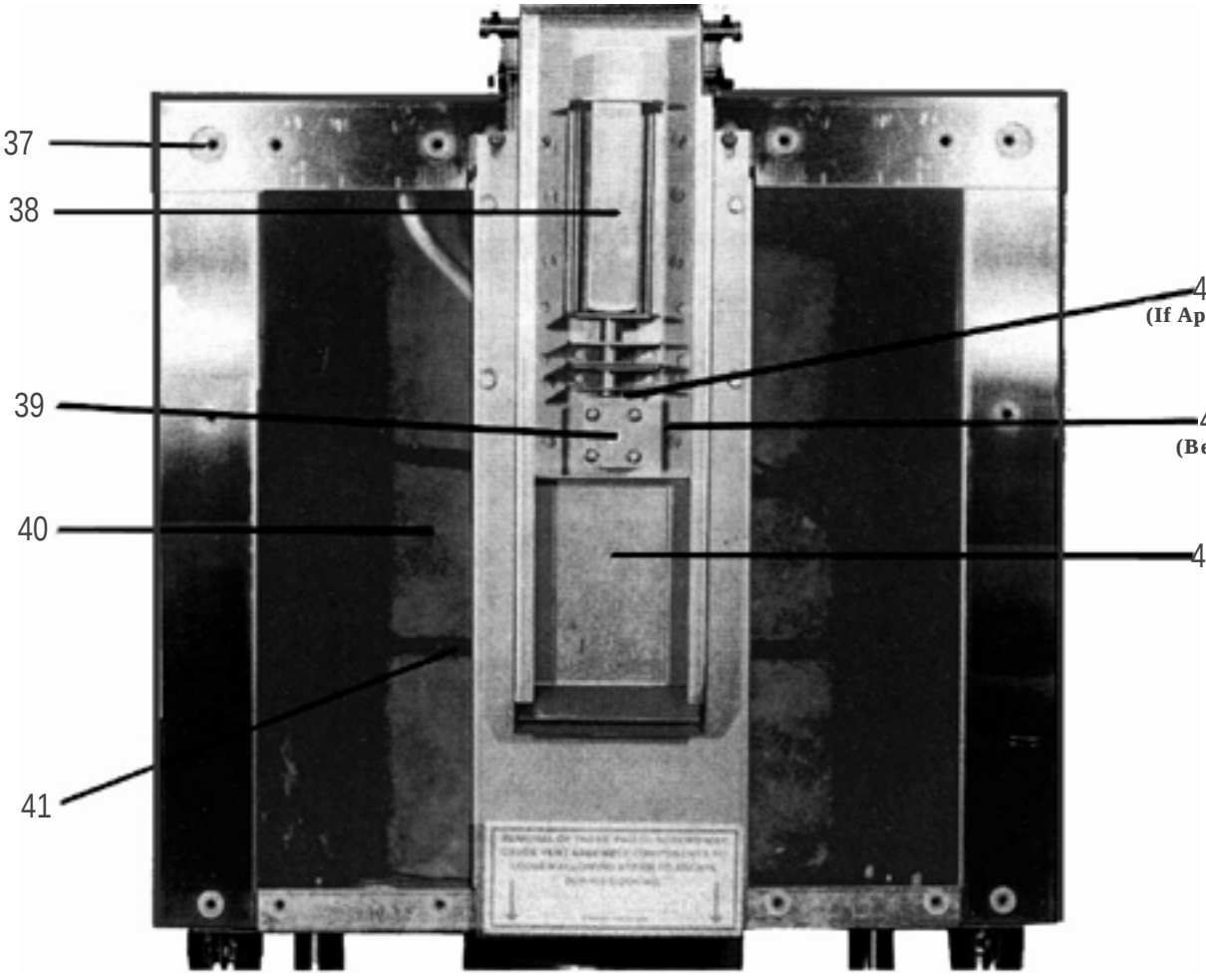
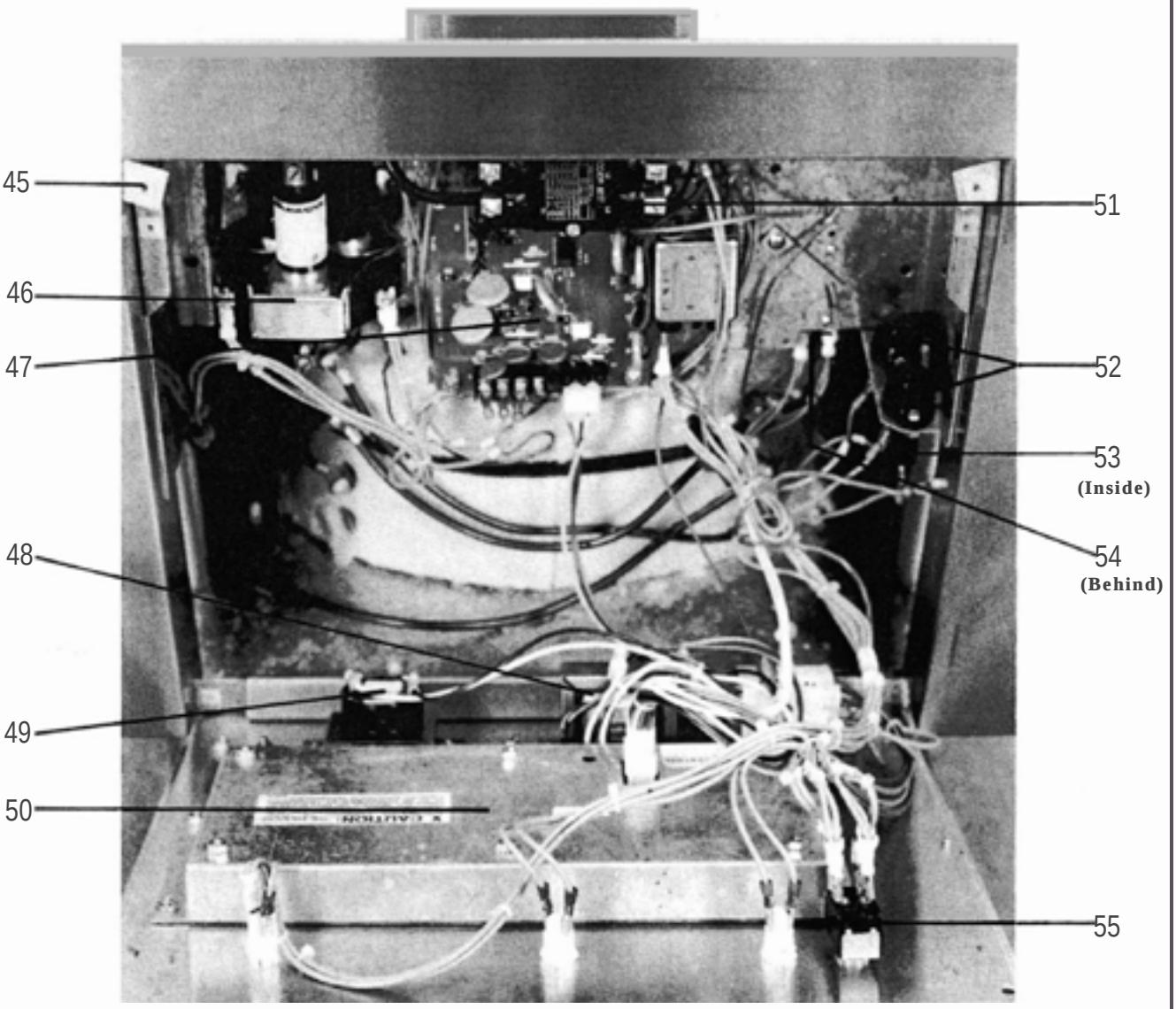


NOTE: 6-Head Model Picture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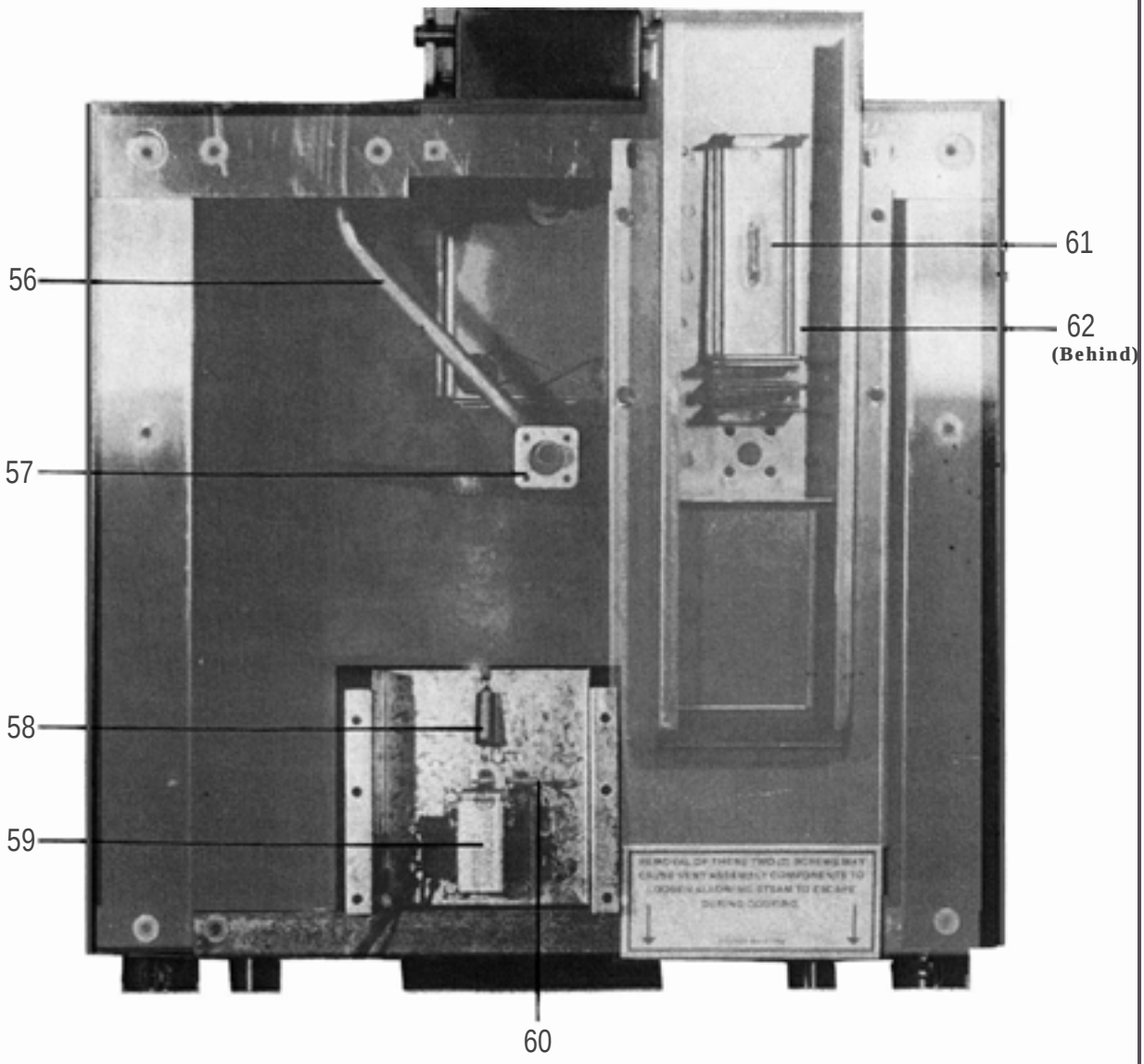


NOTE: 6-Head Model Pictured

PARTS IDENTIFICATION

Photo Item No.	Part Description	Order Number	Kit Content	
			Qty	Description
1	Lid Lock	PS1449	1	Lid Lock
2	Handle Bar	PS1168	1	Handle
3	Lid Valve Assembly	PS1127	1	Valve Body
			1	Spring
			1	Retainer
			1	O-Ring
4	Lid Valve Spring	PS1028/3	3	Spring
5	Lid Valve Retainer	PS1057	1	Retainer
6	Lid Valve O-Ring	PS1010/3	3	O-Ring
7	Danger Panel	PS1210	1	Panel
8	Latch Block (Front)	PS1399	1	Block
			3	Washer
			3	Lockwasher
			3	Nut- Flex Lock
9	Eyebrow	PS1134	1	Eyebrow
10	'High Limit' Indicator Lamp	PS1012/3	3	Lamp
11	'Heat On' Indicator Lamp	PS1012/3	3	Lamp
12	Membrane Panel	PS1748	1	Panel
13	Drain Valve	PS1066	1	Valve
			1	Valve Plate
			2	Screw
			2	Nut
14	Collector		1	Collector
			1	Heat Plate
	13"	PS1206		
	11"	PS1925		
15	Lid Gasket	PS1891/3	3	Gasket
16	Lid	PS1046	1	Lid- Pressure Lock

PARTS IDENTIFICATION

Photo Item No.	Part Description	Order Number	Kit Content	
			Qty.	Description
17	Screw	PS1118/6	6	Screw
18	Switch Guard	PS1086	1	Guard
19	Power Indicator Lamp	PS1012/3	3	Lamp
20	Drain Valve Handle	PS1695	2	Screw
			1	Handle
			2	Nut
			1	Bracket
21	Leg	PS1142/2	2	Leg
22	Screw	PS1241/6	6	Screw
23	Back Panel		2	Panels
	4 - Head	PS1697		
	6 - Head	PS1698		
24	Muffler	PS1152	1	Muffler
25	Wheel Assembly	PS1226/2	2	Wheel - 4"
			2	Bolt
			2	Nut
26	Vent Back Cap	PS1729	1	Cap
			1	Nut
27	Vent Back Assembly	PS1156	1	Vent Back
			2	Spring
			2	Rod
			1	Cap
			1	Nut
28	Leg Clamp Assembly	PS1621	1	Clamp
			2	Screw
			2	Nut
29	Hinge Block (Rear)	PS1400	1	Hinge Block
			3	Washer
			3	Lockwasher
			3	Nut

PARTS IDENTIFICATION

Photo Item No.	Part Description	Order Number	Kit Content	
			Qty.	Description
30	'High Limit' T'Stat Clamp	PS1312	1	Clamp
			1	Screw
31	Heater Holder	PS1430/3	3	Heater Holder
32	Collector Gasket	PS1892/3	3	Gasket
33	Heat Plate		1	Heat Plate
	14.75"	PS1034		
	12.75"	PS1918		
34	Heater Assembly		1	Heater Coil
			6	Ferrule
			2	Nut
			2	Compression Nut
			2	Washer
	208 Volts	PS1147		
	240 Volts	PS1148		
35	Probe Guard	PS1744	1	Probe Guard
			1	Screw
36	Probe Assembly	PS1747	1	Probe
			1	Washer
37	Grommet	PS1263/6	6	Grommet
38	Weight		1	Weight
	4 - Head (14 PSI)	PS1071		
	4 - Head(11.9PSI)	PS1072		
	6 - Head(11.9PSI)	PS1073		
	NOTE: For identifying correct weight when ordering, read PSI engraved on weight lifter.			
39	Vent Block Assembly		1	Block
			1	O-Ring
			4	Screw
			1	Nut Plate
			1	Plug
	4 - Head	PS1026		
	6 - Head	PS1684		

PARTS IDENTIFICATION

Photo Item No.	Part Description	Order Number	Kit Content	
			Qty.	Description
40	Insulation		1	Insulation - Front
			1	Insulation - Back
			2	Strap
			2	Buckle
	4 - Head	PS1031		
	6 - Head	PS1792		
41	Insulation Strap	PS1219/2	2	Strap
			2	Buckle
42	Vent Ball		3	Vent Ball
	4 - Head (If applicable)	PS1003/3		
	6 - Head (If applicable)	PS1685/3		
43	Vent Tube O-Ring	PS1005/3	3	O-Ring
44	Vent Assembly		1	Weight Lifter
			1	Teflon Slide
			2	Solenoid Wires
			1	Vent Weld Asm
			1	Solenoid
			1	Spring
			1	Bracket
			8	Nut
			8	Screw
			1	Cotter Pin
	4 - Head	PS1458		
	6 - Head	PS1686		
45	Grommet	PS127l/6	6	Grommet
46	Mercury Relay	PS1448	1	Relay
47	Circuit Board - Power	PS1800	1	Circuit Board
48	Transformer	PS1687	1	Transformer
49	Buzzer	PS1586	1	Buzzer
50	Computer		1	Computer
	General Market	PS1745		
	KFC (All markets excluding Canada)	PS1927		
	KFC (Canada)	PS1848		

PARTS IDENTIFICATION

Photo Item No.	Part Description	Order Number	Kit Content	
			Qty.	Description
51	Electromechanical Relay	PS1007	1	Relay
52	Fuse Holder	PS1096/2	2	Fuse Holder
53	Fuse Kit	PS1095/6	6	Fuse
54	High Limit Thermostat	PS1184	1	Thermostat
	" " " Canadian	PS1731	1	Thermostat
55	On/Off Switch	PS1529	1	Switch
56	Vent Tube		1	Tube
	4 - Head	PS1322		
	6 - Head	PS1678		
57	Vent Block Nut Plate	PS1704/6	6	Nut Plate
58	Vent Solenoid Spring	PS1320/3	3	Spring
59	Vent Solenoid	PS1088	1	Solenoid
			1	O-Ring
			2	Terminal Ring
			1	Cotter Pin
60	Vent Solenoid Cotter Pin	PS1121/3	3	Cotter Pin
61	Weight Lifter		1	Weight Lifter
			1	Teflon Slide
	4 - Head			
	11.9 PSI	PS1040		
	14.0 PSI	PS1039		
	6 - Head - 11.9 PSI	PS1041		
62	Teflon Slide	PS1075/3	3	Teflon Slide

TROUBLESHOOTING

SYMPTOMS	FAULTS
Electric shock **while in contact with fryer.** DANGER: **Turn OFF circuit breaker or disconnect fryer from power source**	1
Low pressure	15,16,17,18,22
No Pressure	19,21,20,22,23,40,4
Pressure loss excessive through Vent in rear of fryer.	19,22,20,21,23
Pressure loss excessive through Lid Valve.	16,17,43
Not venting at end of cooking cycle	20,25,43,44,45,23
No heat	2,7,39,14,46,4,40
Heats slowly.	2,5,11,14,6
Heat On Lamp off when heating.	7,9
Heat On Lamp constantly ON during cook cycle.	3,46,4
High Limit Lamp on continuously.	10,46,4
Power Lamp out or dim..	2,9
Electromechanical relay buzzing loudly.	7,24,14
Solenoid buzzing loudly.	47,20,24,37
Shortening leaking from front of fryer.	27,28
Shortening leaking around Collector Gasket.	26,48
Shortening smoking	29,30
Shortening too hot.	3,42,4
Shortening has burnt or bad taste.	31,30,13,33
Shortening foaming excessively.	30
Shortening breaking down too quickly.	36,31,12,13,8
Shortening boils over.	32,33,34,35,38
“Probe”displayed in window.	49,42,39,4
No Display in window.	7,41,4
Fryer stops heating between170-230 on display	50,51
Display shows ‘H_2O’	50,51

TROUBLESHOOTING

	FAULTS	REMEDIES: CLEAN	ADJUST	REPAIR	REPLACE
1	Improper ground, wiring short **DANGER**: Turn OFF circuit breaker.			*	*
2.	Open power line				
	Circuit breaker tripped.		*		
	Fuse blown				*
	Cordset not plugged in		*		
	Faulty power switch.				*
3.	Programming error in computer.		*		
4.	Computer defective.				
5.	One of three circuits open in fryer.				*
6.	Heater wires connected wrong (3 ph. vs single ph).		*		
7.	Loose wire connections.			*	
8.	208 volt fryer installed on 240 volt supply.		*		
9.	Indicator Lamp burned out.				*
10.	High Limit Thermostat defective.				*
11.	Heater(s) burned out.				*
12.	Heaters misaligned.		*		
13.	Heater(s) out of holders and touching.		*		
14.	Electromechanical Relay Defective.				*
15.	Lid Gasket defective.				*
16.	Lid Valve O-Ring not seating, defective.				*
17.	Lid Valve Retainer loose.		*		
18.	Weight dirty.	*			
19.	Lost Vent Ball under weight in vent assembly (if applicable - newer systems do not utilize ball).				*
20.	Power Board defective.				*
21.	Solenoid defective.		*		*
22.	Vent Tube O-Ring defective..				*
23.	Weight Lifter dirty or defective.	*			*
24.	Relay mounting is loose.		*		
25.	Vent Spring defective or missing.				*
26.	Collector Gasket dirty or defective.	*			*
27.	Thermostat, Heater or Probe nuts on cooking vessel wall loose.		*		
28.	Thermostat, Heater or Probe ferrules damaged.				*
29.	Shortening level below top heater		*		
30.	Shortening badly broken down.	*			*
31.	Crackling build-up on heater coils.	*			
32.	Cracklings left in Collector from night before or overfilled. . .	*			
33.	Contents of Collector stirred after warm-up.				
34.	Heat Plate left out of Collector.		*		*
35.	Solid shortening in Collector - improper warm-up.	*			
36.	Fryer not cleaned properly.	*			

TROUBLESHOOTING

FAULTS	CLEAN	ADJUST	REPAIR	REPLACE
37. Cotter pin too long or tight (must rotate freely).		*		*
38. Excessive moisture in shortening	*			
39. Pin loose in molex connector on computer			*	
40. Power board plug loose or off		*		
41. Transformer defective				*
42. Probe defective.				*
43. Shortening/crackling build up in vent tube.	*			
44. Vent Ball stuck on Vent Block (if applicable).	*			
45. Vent solenoid cotter pin missing.				*
46. Mercury relay defective.				*
47. Vent solenoid dirty.	*			
48. Collector Out of round - defective.				*
49. Probe wire(s) disconnected from plug.			*	
50. Fryer filled with water (See Note 1).				
51. Solid shortening being melted in fryer (See Note 2).				

NOTE 1: This fryer is equiped with an AquaLert™ software system. Software is designed to stop the heat-up process prior to boiling point when water is detected in fryer. If fryer is filled with water, empty, clean, dry thoroughly and fill with cooking oil.

NOTE 2: When solid shortening is being heated in fryer, the water detection software system may respond as though water is being heated due to the slower heat curve experienced. When heating solid shortening, remove any pieces which may be lodged next to temperature sensing probe.

AMPERAGE/OHM VALUE CHARTS

NOTE: **Resistance measurements are taken across coil of relays and terminal ends on heaters. Wires must be removed from component prior to resistance check.**

OHM CHART

DESCRIPTION	OHMIC VALUE	PART NO
Mercury Relay		
Watlow	690.0 OHMS +/- 10%	PS1448
Duracool	500.0 OHMS +/- 10%	PS1448
Electromechanical Relay	225.0 OHMS +/- 10%	PS1007
Heater - 208V, 3500W	12.3 OHMS +/- 10%	PS1147
Heater - 240V, 3500W	16.4 OHMS +/- 10%	PS1148

AMPERAGE CHART

USA & CANADA

PHASE	VOLTAGE	LINE CURRENT (AMPS)	HEATER CURRENT (AMPS)
1	208	-	-
	240	43.7	14.6
3	208	29.2	16.8
	240	25.2	14.6

ENGLAND/ MALAYSIA/SINGAPORE

PHASE	VOLTAGE	LINE CURRENT (AMPS)	HEATER CURRENT (AMPS)
1	220	40.1	13.4
	240	43.7	14.6
3	-	-	-
	-	-	-

ENGLAND/ MALAYSIA/SINGAPORE

PHASE	VOLTAGE	LINE CURRENT (AMPS)	HEATER CURRENT (AMPS)
1	-	-	-
	-	-	-
3	380	13.4	13.4
	416	14.6	14.6

AUSTRALIA

PHASE	VOLTAGE	LINE CURRENT (AMPS)	HEATER CURRENT (AMPS)
1	-	-	-
3	416	14.6	14.6

NEW ZEALAND

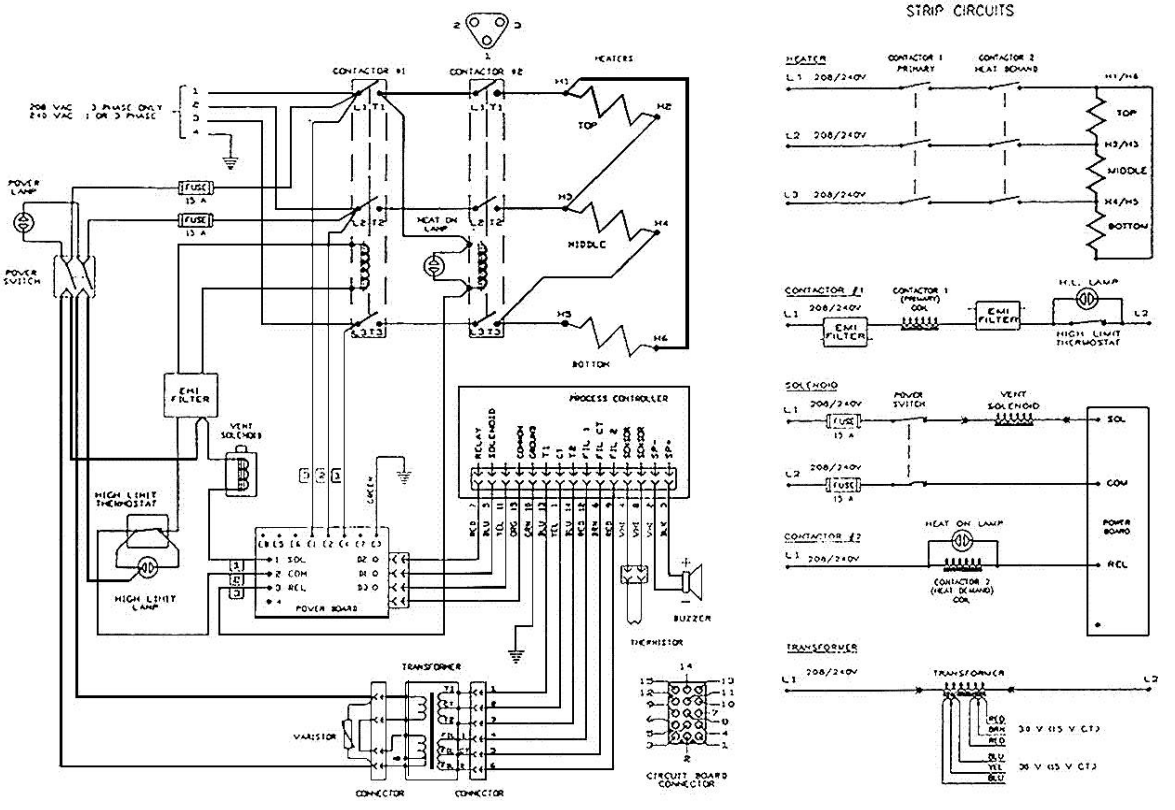
PHASE	VOLTAGE	LINE CURRENT (AMPS)	HEATER CURRENT (AMPS)
1	-	-	-
3	400	13.9	13.9

SOUTH AFRICA

PHASE	VOLTAGE	LINE CURRENT (AMPS)	HEATER CURRENT (AMPS)
1	-	-	-
3	380	13.4	13.4

CAUTION: **208 Volt Fryers are not to be used in single phase applications. Current produced exceeds acceptable standards.**

WIRING DIAGRAM

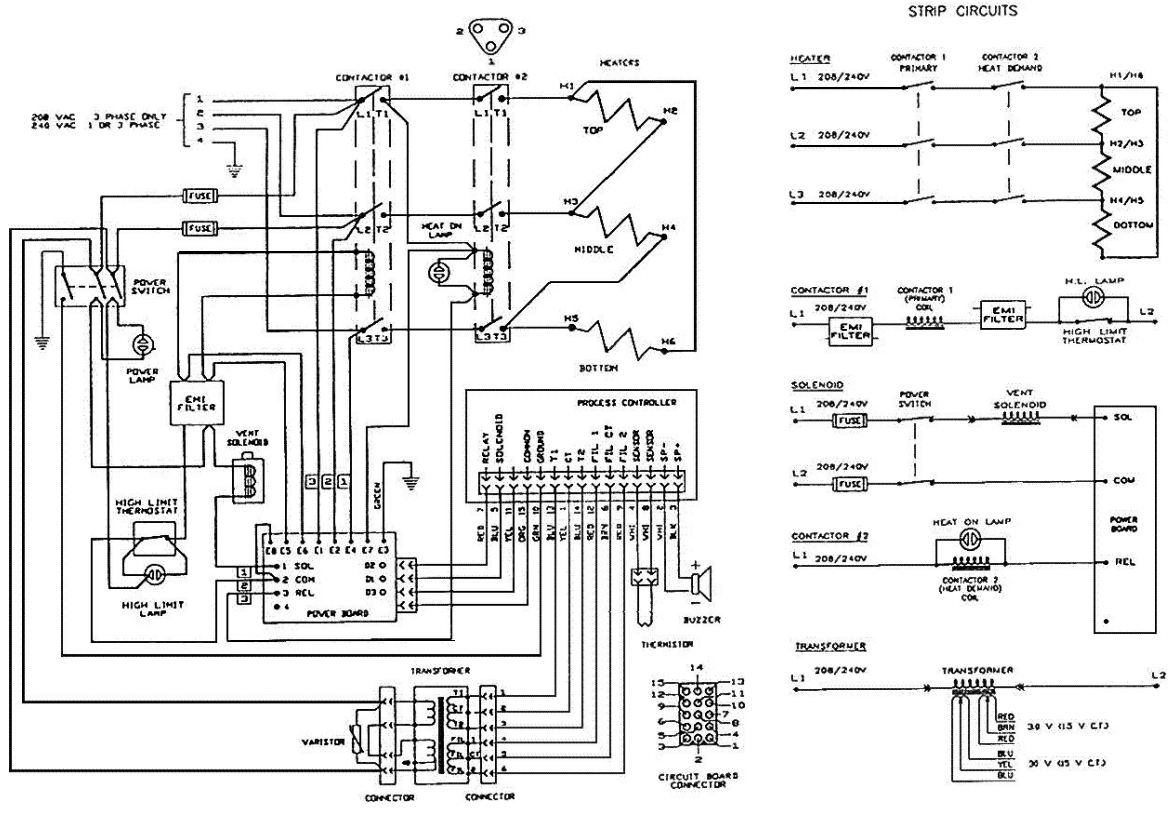


FOR MODELS NUMBERS:

PF46P32SJ (or M)
PF56P32SJ (or M)
PF46P37SJ (or M)
PF56P37SJ (or M)

Model numbers listed are as reflected on Identification Tag.

WIRING DIAGRAM

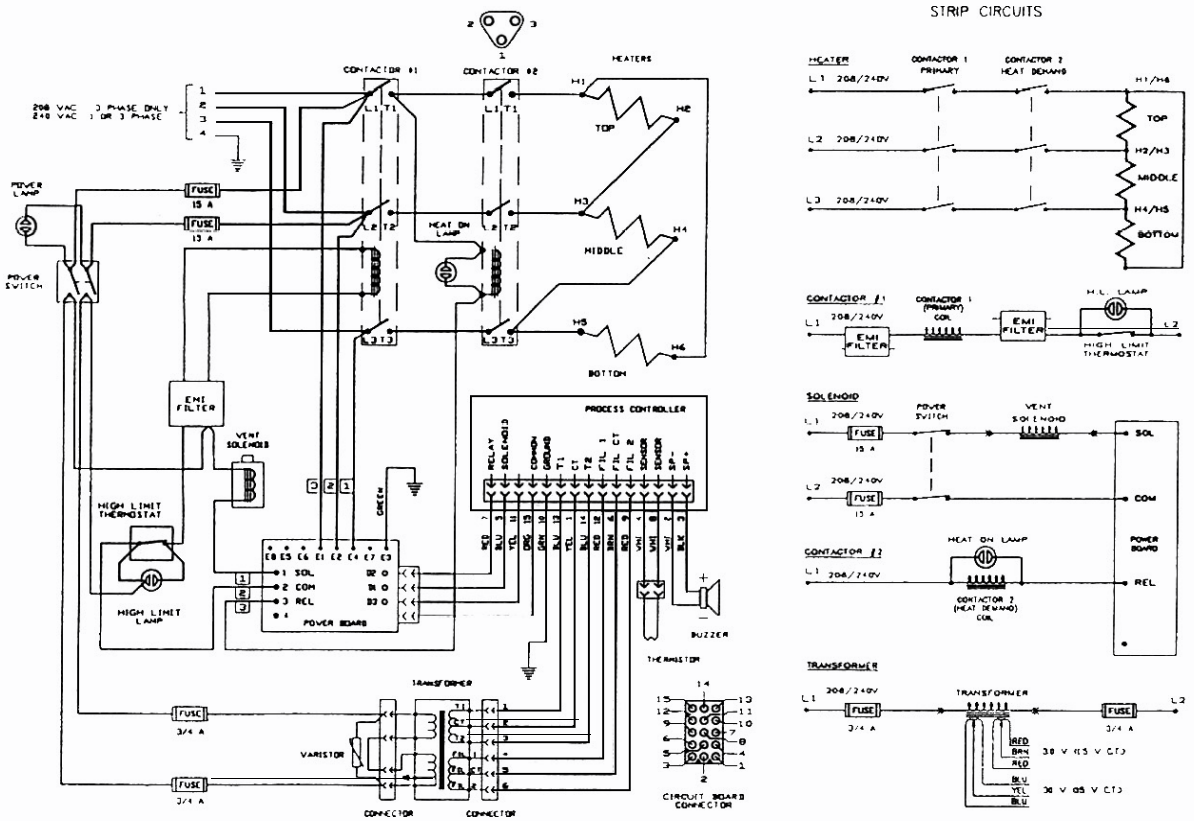


FOR MODELS NUMBERS:

PFWPC4201SJ (or M)
PFWPC6201SJ (or M)

Model numbers listed are as reflected on Identification Tag.

WIRING DIAGRAM

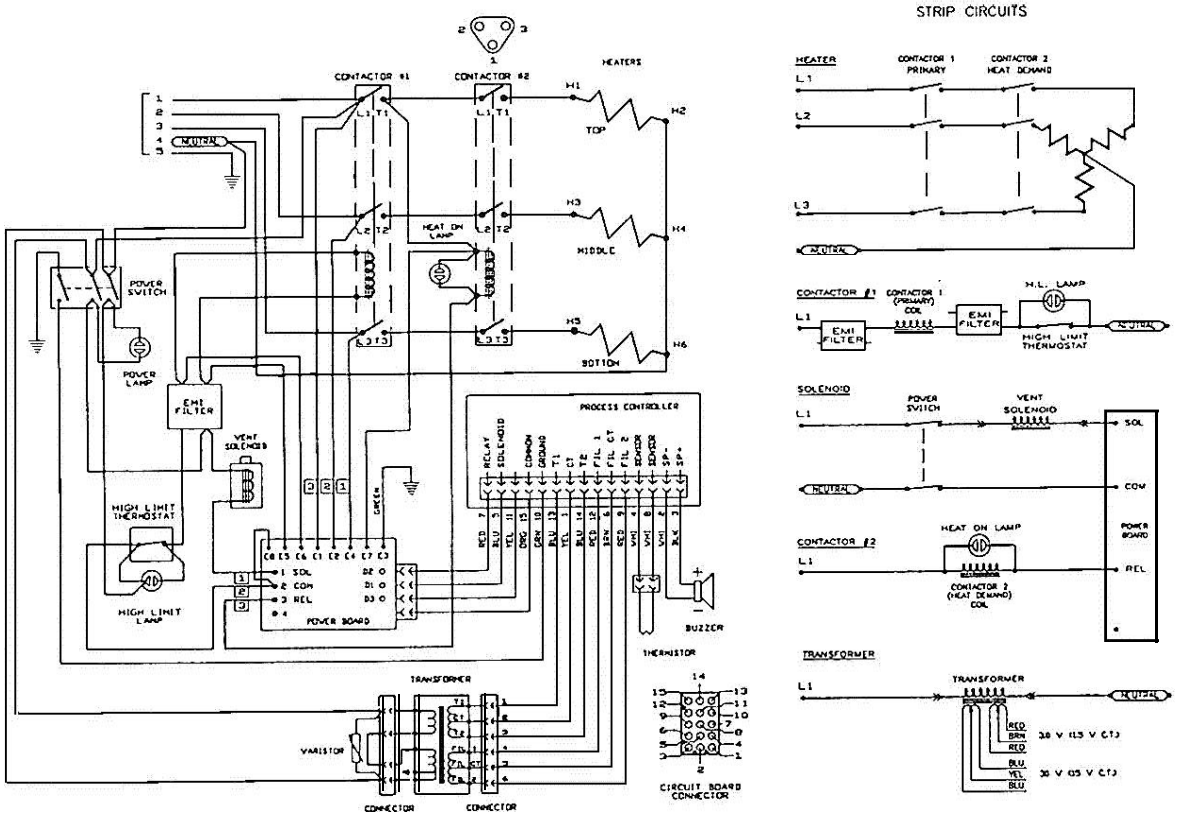


FOR MODELS NUMBERS:

PFWPC4201CASJ (or M)
PFWPC6201CASJ (or M)

Model numbers listed are as reflected on Identification Tag.

WIRING DIAGRAM



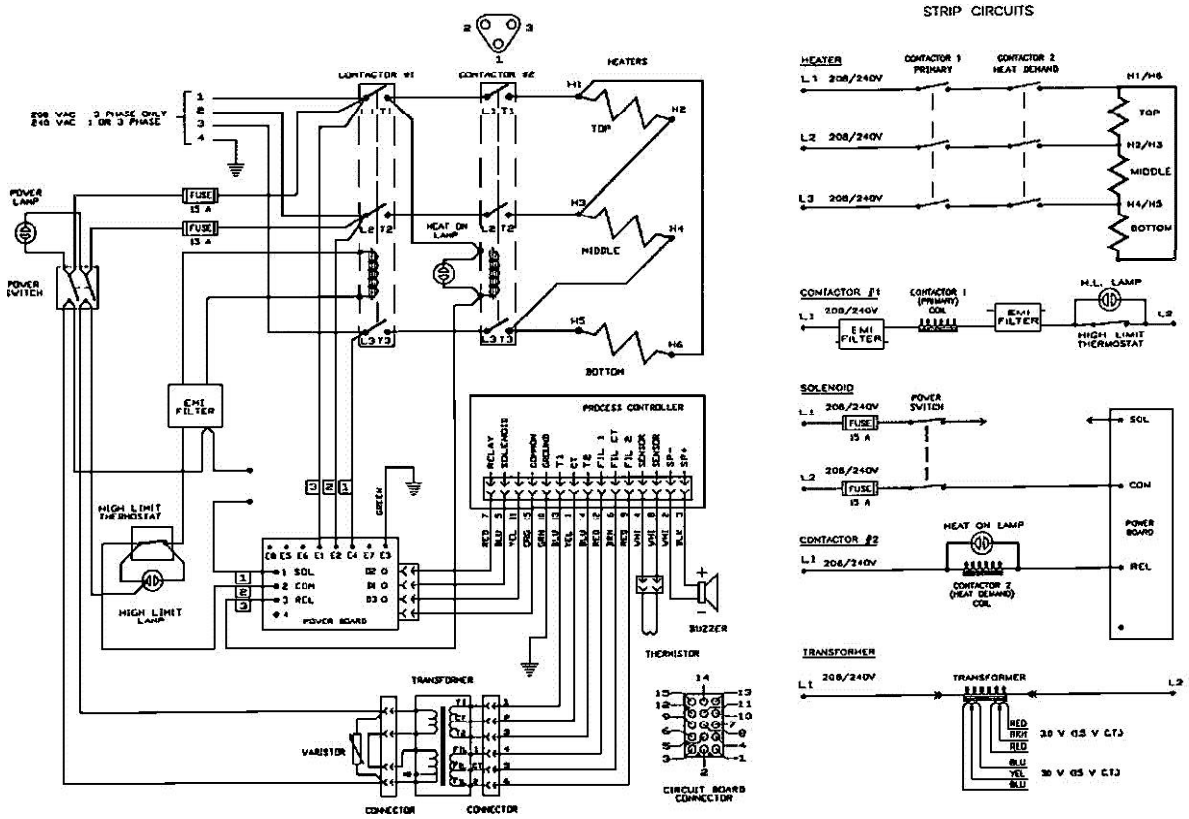
FOR MODELS NUMBERS:

PFWPC4201NZSN
PFWPC6201NZSN
PFWPC4201MASN
PFWPC6201MASN
PF46P44SN
PF56P44SN

PFWPC4201AUSN
PFWPC6201AUSN
PF46P45SN
PF56P45SN

Model numbers listed are as reflected on Identification Tag.

WIRING DIAGRAM

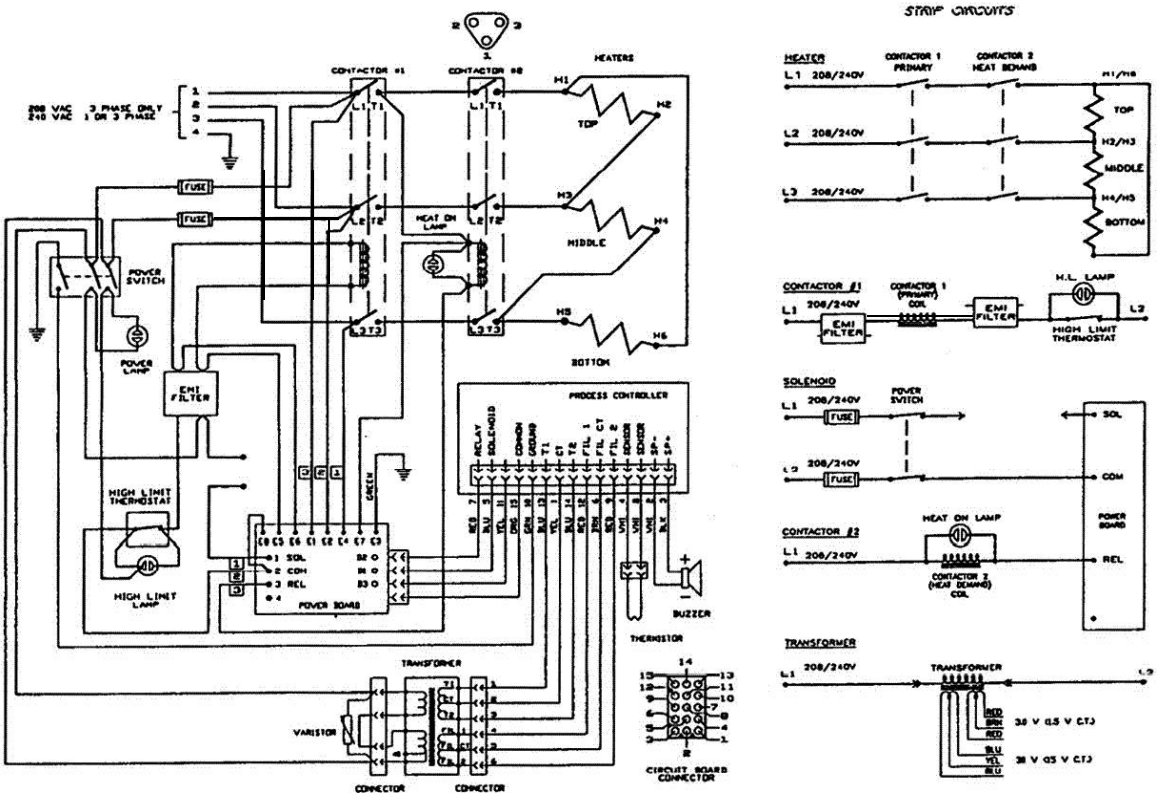


FOR MODELS NUMBERS:

OF49P32SJ (orM)
OF59P32SJ (orM)
OF49P37SJ (orM)
OF59P37SJ (orM)

Model numbers listed are as reflected on Identification Tag.

WIRING DIAGRAM

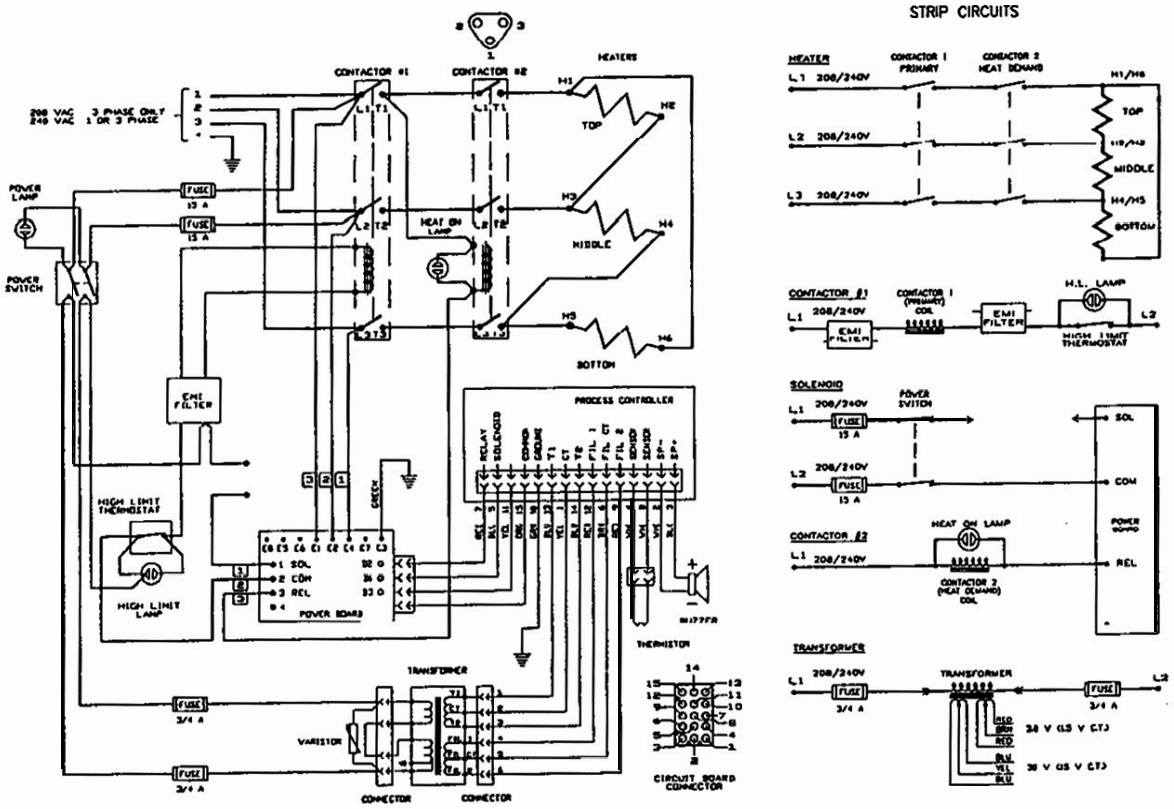


FOR MODELS NUMBERS:

OFWPC4201SJ (or M)
OFWPC6201SJ (or M)

Model numbers listed are as reflected on Identification Tag.

WIRING DIAGRAM

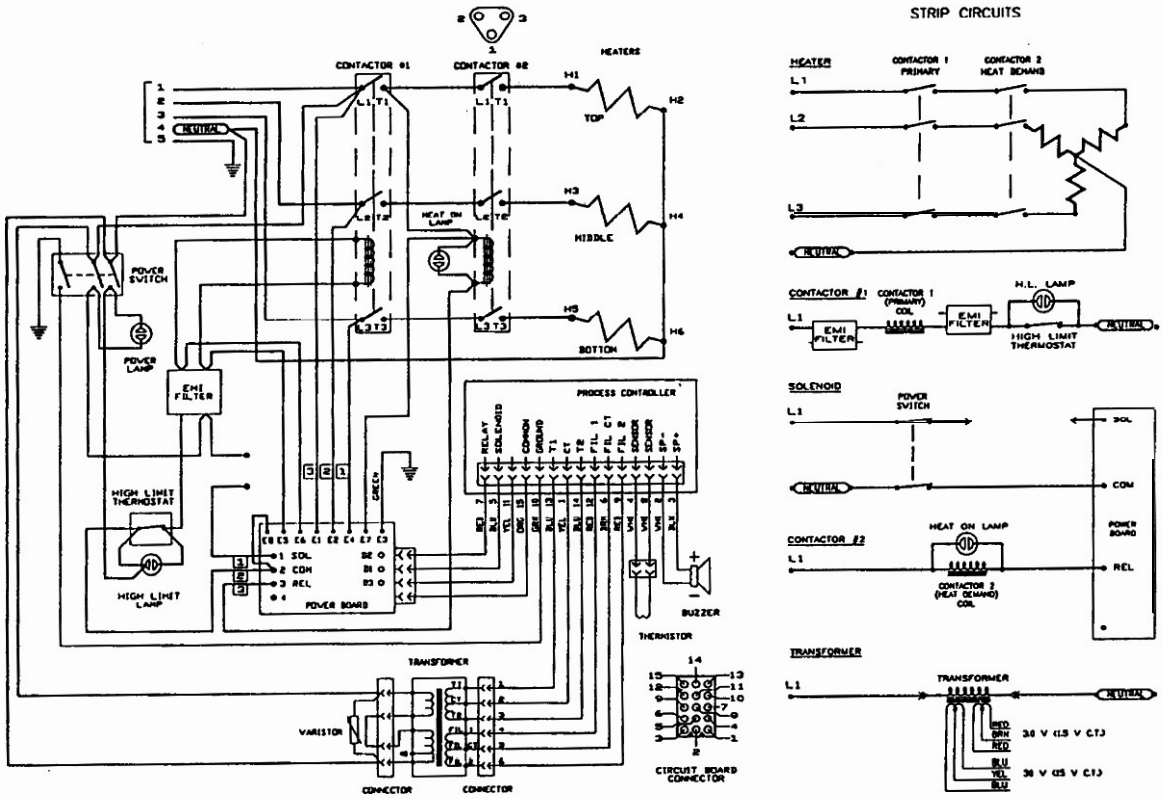


FOR MODELS NUMBERS:

OFWPC4201CASJ (or M)
OFWPC6201CASJ (or M)

Model numbers listed are as reflected on Identification Tag.

WIRING DIAGRAM



FOR MODELS NUMBERS:

OFWPC4201NZSN
OFWPC6201NZSN
OFWPC4201MASN
OFWPC6201MASN
OF49P44SN
OF59P44SN

OFWPC4201AUSN
OFWPC6201AUSN
OF49P45SN
OF59P45SN

Model numbers listed are as reflected on Identification Tag.

REPLACE ELECTROMECHANICAL RELAY (ITEM N0.51)

Tools: Phillips Screwdriver #2; Slotted Screwdriver.

Procedure:

1. **DANGER:** Turn off electrical power and disconnect electrical power supply. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**
2. Remove the two (2) screws securing eyebrow to relay panel and save for reuse.

CAUTION: Utilize care in preventing escutcheon from falling forward when removing screws in Step 3.

3. Remove the four (4) screws securing escutcheon to relay panel and save for reuse. Lower escutcheon slowly until secure in open position.
4. Remove relay wires. **NOTE:** Mark each wire location to ensure proper connection to new relay.
5. Remove the four (4) screws securing relay to panel and save for reuse.
6. Replace the four (4) screws securing new relay to panel.
7. Observing wire location markings, connect wires to proper relay terminals.
8. Replace the four (4) screws securing escutcheon to relay panel.
9. Replace the two (2) screws securing eyebrow to relay panel and place unit back into service.

REPLACE MERCURY RELAY (ITEM NO. 46)

Tools: Phillips Screwdriver #2; Slotted Screwdriver.

Procedure:

1. **DANGER**: Turn off electrical power and disconnect electrical power supply. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**
2. Remove the two (2) screws securing eyebrow to relay panel and save for reuse.

CAUTION: Utilize care in preventing escutcheon from falling forward when removing Screws in Step 3.

3. Remove the four (4) screws securing escutcheon to relay panel and save for reuse. Lower escutcheon slowly until secure in open position.
4. Remove relay wires. **NOTE:** Mark each wire location to ensure proper connection to new relay.
5. Remove the four (4) screws securing relay to panel and save for reuse.

6. Replace the four (4) screws securing new relay to panel.
7. Observing wire location markings, connect wires to proper relay terminals.
8. Replace the four (4) screws securing escutcheon to relay panel.
9. Replace the two (2) screws securing eyebrow to relay panel and place unit back into service.

REPLACE TRANSFORMER (ITEM NO. 48)

Tools: Phillips Screwdriver #2; Nut Driver -3/8"; Wire Cutters.

Procedures:

1. **DANGER:** Turn off electrical power and disconnect electrical power supply. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**
2. Remove the two (2) screws securing eyebrow to relay panel and save for reuse.

CAUTION: Utilize care in preventing escutcheon from falling forward when removing screws in step 3.

3. Remove the four (4) screws securing escutcheon to relay panel and save for reuse. Lower escutcheon slowly until secure in open position.
4. Remove wire tie securing transformer wires to main harness.
5. Disconnect the two (2) transformer plugs from harness plugs.
6. Remove the two (2) nuts securing transformer to escutcheon and save for reuse.
7. Replace the two (2) nuts securing new transformer to escutcheon.
8. Insert the two (2) transformer plugs into harness plugs.
9. Replace the four (4) screws securing escutcheon to relay panel.
10. Replace the two (2) screws securing eyebrow to relay panel and place unit back into service.

REPLACE FUSE HOLDER (ITEM NO. 52)

Tools: Phillips Screwdriver #2; Slotted Screwdriver; Wrench-5/16"

Procedure:

1. **DANGER:** Turn off electrical power and disconnect electrical power supply. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**
2. Remove the two (2) screws securing eyebrow to relay panel and save for reuse.

CAUTION: Utilize care in preventing escutcheon from falling forward when removing screws in Step 3.

3. Remove the four (4) screws securing escutcheon to relay panel and save for reuse. Lower escutcheon slowly until secure in open position.

4. Remove the two (2) wires attached to fuse holder marking wire locations to ensure proper connection to new fuse holder.

5. Remove the two (2) screws securing fuse holder to relay panel. Save screws and nuts for reuse.

6. Replace the two (2) screws and nuts securing new fuse holder to relay panel.

7. Observing wire location markings, connect fuse wire to proper fuse terminals.

8. Replace the four (4) screws securing escutcheon to relay panel.

9. Replace the two (2) screws securing eyebrow to relay panel and place unit back into service.

REPLACE POWER BOARD (ITEM N0. 47)

Tools: Phillips Screwdriver #2; Slotted Screwdriver; Nut Driver - 5/16".

Procedure:

1. **DANGER:** Turn off electrical power and disconnect electrical power supply. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**

2. Remove the two (2) screws securing eyebrow to relay panel and save for reuse.

CAUTION: Utilize care in preventing escutcheon from falling forward when removing screws instep 3.

3. Remove the four (4) screws securing escutcheon to relay panel and save for reuse. Lower escutcheon slowly until secure in open position.

4. Unplug the 3-pin connector from power board.

   NOTE: Mark wire locations to ensure proper connection to new power board and contactor prior to Steps 5 and 6.

5. Remove the three (3) wires attached to bottom of power board.

6. Follow the four (4) wires from right hand side of power board and remove from termination point. Wires labeled El, E2 and E3 connect to contactor #I and E4 to relay panel.

7. Remove the four (4) nuts securing power board to relay panel.

8. Replace the four (4) nuts securing new power board to relay panel.

9. Observing wire location markings, replace the three (3) wires removed in Step 5 to power board.

10. Attach wires marked El, E2 and E3 on power board to Ll. L2 and L3 terminals on contactor #l.

    NOTE: Ll, L2 and L3 terminals on contactor #l are top, middle and bottom terminals respectively.

11. Attach 3-pin plug to power board.

12. Replace the four (4) screws securing escutcheon to relay panel.

13 Replace the two (2) screws securing eyebrow to relay panel and place unit back into service.

REPLACE HEATER (ITEM N0.34)

Tools: Phillips Screwdriver #2; Nut Driver - 3/8" Nut Driver - 7/16". Wrench - 9/16"; Needle Nose Pliers; Wire Cutters; Rubber Mallet; Silicone Sealant.

Procedure:

1. **DANGER:** Turn off electrical power, disconnect electrical power supply, drain shortening and allow to cool. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**

2. Remove the two (2) screws securing eyebrow to relay panel and save for reuse.

CAUTION: Utilize care in preventing escutcheon from falling forward when removing screws in step 3.

3. Remove the four (4) screws securing escutcheon to relay panel and save for reuse. Lower escutcheon slowly until secure in open position.

4. Utilizing caution, hold heater end behind wire terminal and remove hex nut marking wire location prior to removal to ensure proper connection to new heater (See Figure 1).

5. Rotate insulation strap gaining access to buckle. Remove insulation strap and save for reuse.

6. Remove the two (2) pieces of insulation gaining access to heater compression nuts and save for reuse.

7. Remove heater compression nuts and save for reuse.

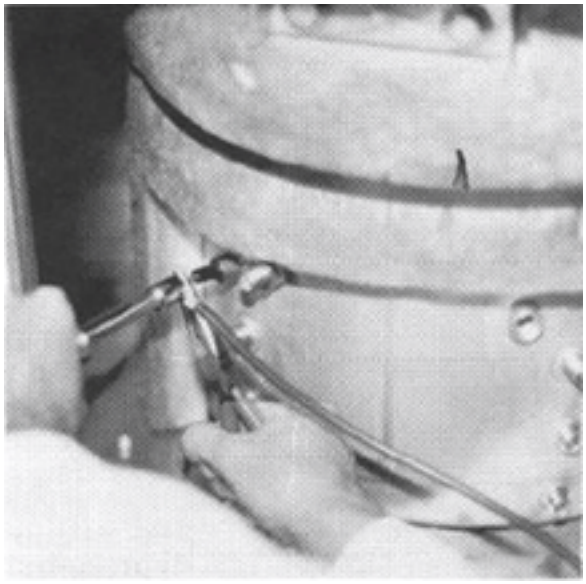


FIG.1

8. Remove lid gaining access to inside of cooking vessel.

   NOTE: If middle or bottom heater has to be replaced, the heater(s) above the one in question must also be removed to permit access.

9. Remove screw securing high limit thermostat bulb and clamp to top heater coil and save for reuse.

10. Remove screw securing probe guard to second heater coil and save for reuse.

11. Remove the two (2) nuts securing each of the three (3) heater holders to fryer. Save nuts and heater holders for reuse.

12. Using rubber mallet, tap heater ends forward on inside of cooking vessel allowing ferrule to be unseated from bushing on outside of vessel (See Figure 2).

CAUTION: Utilize care when removing heater in Step 13 not to damage thermostat bulb or temperature Probe.

13. Using wire cutters, remove ferrules from both heater ends and remove heater. Note position of offset in heater between terminal ends to ensure proper installation of new heater.

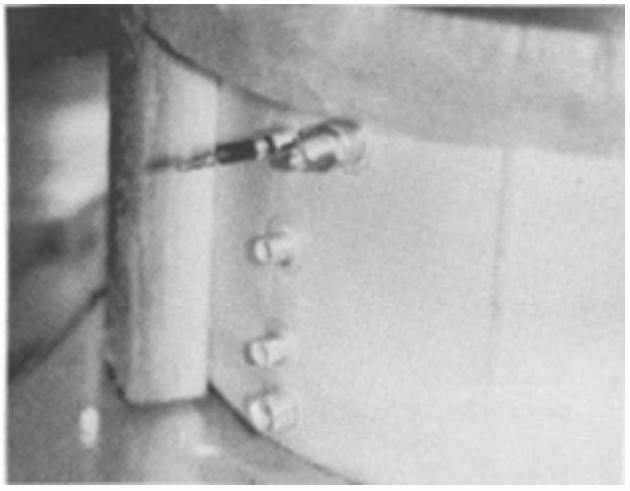


FIG. 2

14. Positioning offsets in proper location, place new heater in cooking vessel inserting ends through existing heater holes.

15. Replace the two (2) nuts securing each of the three (3) heater holders to cooking vessel.

16. Align coils to proper slots in heater holders and using a rubber mallet, gently tap heaters securing them into position.

17. Install new ferrules onto heater ends. Apply small amount of silicone sealant around ferrules and tighten compression nuts.

18. Replace insulation and strap.

19. Place new washer and correct heater wire(s) on heater terminal and utilizing caution, hold heater end behind wire terminal and tighten hex nut (See Figure 3).

20. Replace screw securing probe guard in position. **NOTE:** Correct position of guard is l/4" to right of probe tip.

21. Replace screw securing high limit thermostat bulb and clamp to top heater coil.

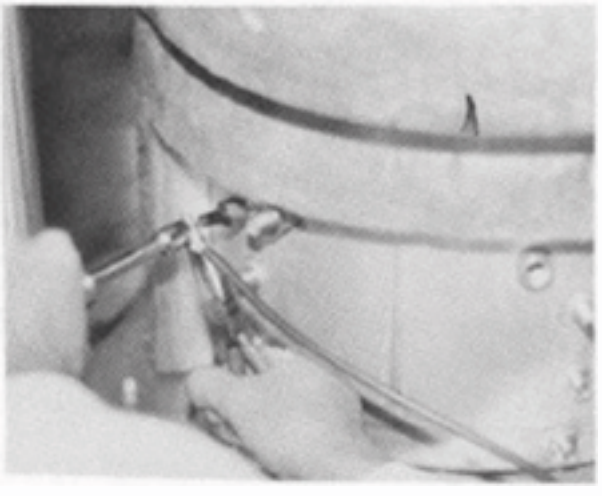


FIG.3

22. Replace the four (4) screws securing escutcheon to relay panel.

23. Replace the two (2) screws securing eyebrow to relay panel and place unit back into service.

REPLACE Hi LIMIT THERMOSTAT (ITEM N0. 54)

Tools: Phillips Screwdriver #2; Slotted Screwdriver; Open End Wrench - 9/16".

Procedure:

1. **DANGER:** Turn off electrical power, disconnect electrical power supply, dram shortening and allow to cool. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**

2. Remove the two (2) screws securing eyebrow to relay panel and save for reuse.

CAUTION: Utilize care in preventing escutcheon from falling forward when removing screws in Step 3.

3. Remove the four (4) screws securing escutcheon to relay panel and save for reuse. Lower escutcheon slowly until secure in open position.

4. Remove screw securing locking arm to thermostat shaft. Save screw and arm for reuse.

5. Disconnect probe assembly from extension wire (See Figure 6 on following page).

CAUTION: Utilize care in preventing relay panel from falling forward when removing screws in Step 5.

6. Remove the four (4) screws securing relay panel to side panels and save for reuse. Lower panel slowly until secure (See Figure 4).

7. Rotate insulation strap gaining access to buckle. Remove insulation strap and save for reuse.

8. Remove section of insulation gaining access to thermostat bulb and compression nut.

9. Remove lid gaining access to inside of cooking vessel.

10. Remove screw securing thermostat bulb and clamp to top heater coil and save for reuse. Note position of bulb and clamp to ensure proper installation of new thermostat (See Figure 5).

11. Remove compression nut securing thermostat bulb to bushing.

12. Remove bushing and bulb from inside of cooking vessel.

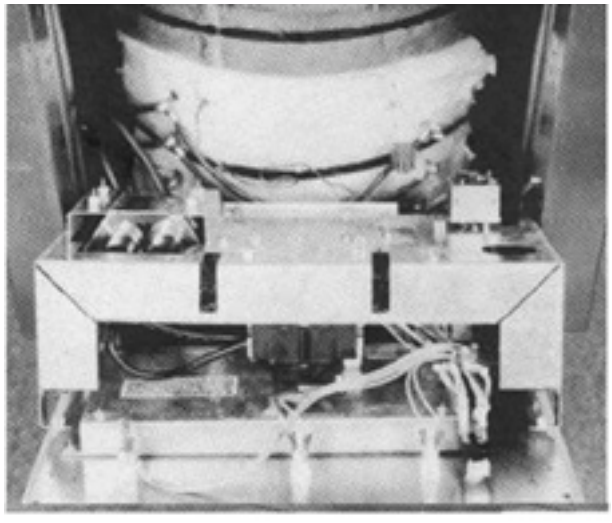


FIG. 4

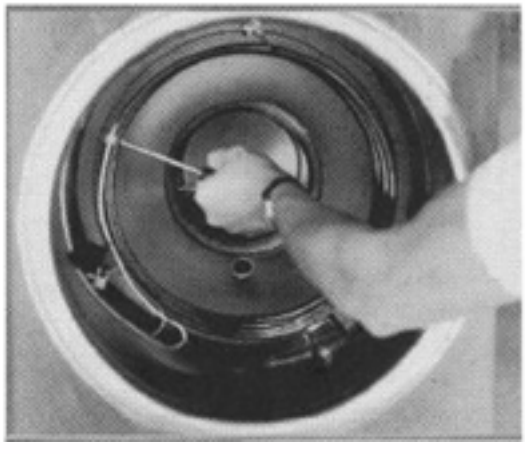


FIG. 5

13. Remove the two (2) screws securing thermostat to relay panel and save for reuse.

14. Replace the two (2) screws securing new thermostat to relay panel.

NOTE: Verify aluminum washer is in place. Washer should be placed flush against bushing prior to Step 14.

15. Route thermostat bulb through cooking vessel and heater holder. Replace screw securing bulb and clamp to top heater coil.

16. Apply a small amount of silicone sealant to bushing and secure to cooking vessel.

17. From inside of cooking vessel, holding thermostat bulb secure at point of entrance, tighten compression nut.

18. Replace insulation and strap.

19. Replace the four (4) screws securing relay panel to side panels.

20. Slide locking arm over thermostat shaft and replace screw securing arm to relay panel.

21. Replace the four (4) screws securing escutcheon to relay panel.

22. Replace the two (2) screws securing eyebrow to relay panel and place unit back into service.

REPLACE PROBE (ITEM NO. 36)

Tools: Phillips Screwdriver #2; Wrench - 9/16"; Wrench - 11/16"; Rubber Mallet; Silicone Sealant.

Procedures:

1. **DANGER:** Turn off electrical power, disconnect electrical power supply, drain shortening and allow to cool. If unit is hardwired **CIRCUIT BREAKER MUST BE OFF.**

2. Remove the two (2) screws securing eyebrow to relay panel and save for reuse.

CAUTION: Utilize care in preventing escutcheon from falling forward when removing screws in Step 3.

3. Remove the four (4) screws securing escutcheon to relay panel and save for reuse. Lower escutcheon slowly until secure in open position.

4. Disconnect probe assembly from extension wires (See Figure 6).

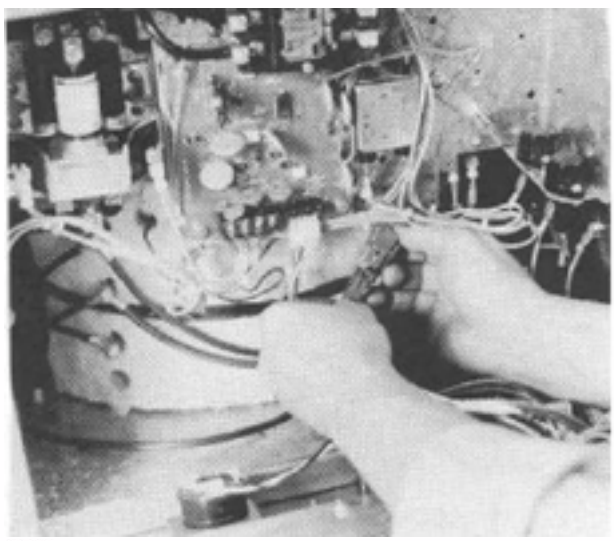


FIG. 6

CAUTION: Utilize care to prevent relay panel from falling unsupported when removing screws in Step 5.

5. Remove the four (4) screws securing relay panel to side panels and save for reuse. Lower panel slowly until secure (See Figure 7).

6. Pull down top edge of insulation and remove compression nut securing probe assembly to cooking vessel (See Figure 8).

7. Remove lid gaining access to inside of cooking vessel.

8. Using rubber mallet, gently tap probe allowing ferrule to unseat from bushing on outside of cooking vessel.

9. Remove bushing securing probe assembly to cooking vessel.

NOTE: Verify aluminum washer is seated flush against probe bushing prior to Step 10.

10. Insert new probe into hole and secure bushing to cooking vessel using 11/16" open end wrench.

11. Apply silicone sealant to ferrule.

12. **CAUTION:** Position of probe tip is critical. Align probe tip to where bend in probe occurs at 3/8" from fryer wall. Tighten compression nut using 9/16" open end wrench securing probe in place. (See Figure 9).

13. Replace the four (4) screws securing relay panel to side panels.

14. Connect probe wires to extension wires.

15. Replace the four (4) screws securing escutcheon to relay panel.

16. Replace the two (2) screws securing eyebrow to relay panel and place unit back into service.

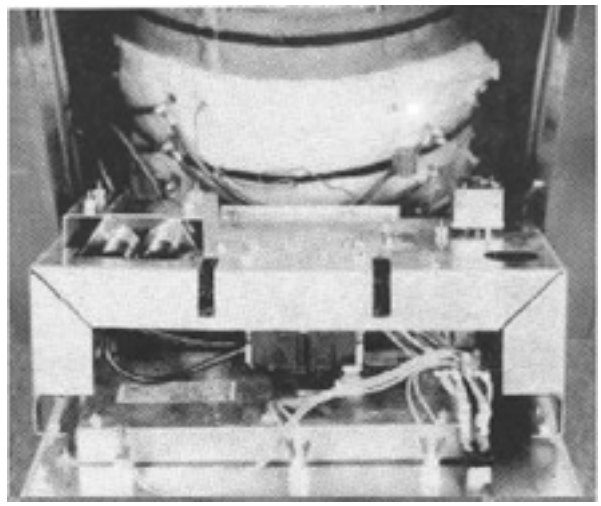


FIG. 7

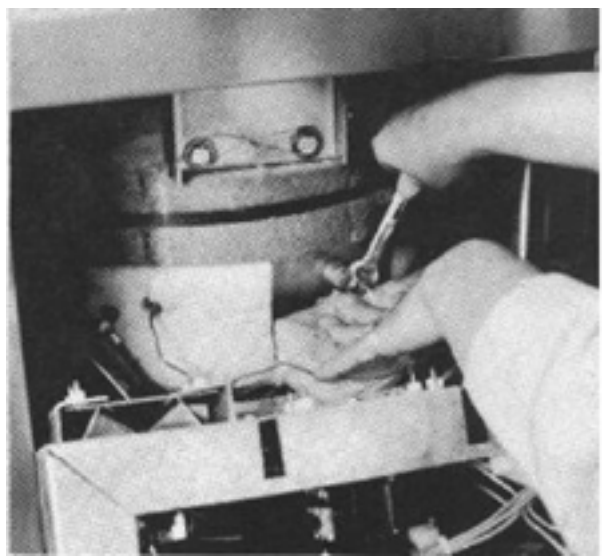


FIG. 8

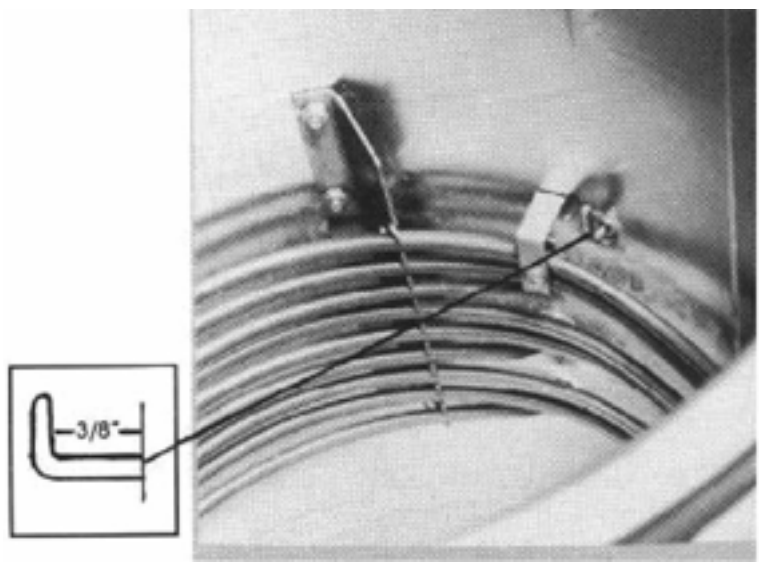


FIG. 9

REPLACE ON/OFF SWITCH (ITEM NO.55)

Tools: Nut Driver-5/8"; Phillips Screwdriver #2.

Procedure:

1. **DANGER :** Turn off electrical power and disconnect electrical power supply. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**
2. Remove the two (2) screws securing eyebrow to relay panel and save for reuse.
3. Remove the four (4) screws securing escutcheon to relay panel and save for reuse.

CAUTION: Utilize care to prevent escutcheon from falling forward when removing these screws. Lower escutcheon slowly until secure in open position.

4. Remove hex nut securing power switch to escutcheon. Remove switch guard from switch. Save switch guard for reuse.
5. Remove old power switch from escutcheon. **DO NOT REMOVE WIRES FROM SWITCH AT THIS TIME.**
6. Position new power switch in escutcheon and adjust knurled nut to allow proper extension of switch stem beyond escutcheon.
7. Position switch guard on switch stem, replace and tighten hex nut being certain to keep switch guard straight.
8. Hold old power switch beside new, and working left to right, transfer wires to new power switch
9. Replace the four (4) screws securing escutcheon to relay panel.
10. Replace the two (2) screws securing eyebrow to relay panel and place unit back into service.

REPLACE LID VALVE O-RING (ITEM NO. 6)

Tools: Slotted Screwdriver - l/8".

Procedure:

1. **DANGER:** Turn off electrical power and disconnect electrical power supply. If unit is hardwired,
   CIRCUIT BREAKER MUST BE OFF.

2. Move or rotate handle bar to open position. Lift lid above front block and remove from fryer. Depress lid lock removing handle bar from lid and save for reuse.

3. Remove lid lock from lid assembly and save for reuse.

4. Lift lid and hold valve body with other hand. Grasp the lid valve retainer with the other hand and twist counter-clockwise to loosen.

5. Remove lid valve retainer. Note that lid valve spring has closed coil on one end and open coil on the other. Open end goes toward lid. Save retainer and spring for reuse.

6. Remove lid valve and lower lid.

7. Using slotted screwdriver, carefully remove defective O-ring from groove in valve body.

8. Install new O-ring carefully pressing into groove in valve body.

9. Raise lid and insert lid valve into hole in lid. Make sure groove for lid lock is toward front. Lean lid toward back of fryer.

10. Holding valve body secure with one hand, install spring, (open coil toward lid). Using other hand turning clockwise, carefully screw retainer into valve body. Utilizing only hand pressure, completely tighten retainer to lid valve.

11. Lower lid and insert lid lock into groove in lid valve.

12. Depress lid lock, replace handle bar and place unit back into service.

REPLACE LID LOCK ASSEMBLY (ITEM NO. 1)

Tools: N/A

Procedure:

1. **DANGER:** Turn off electrical power and disconnect electrial power supply. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**

2. Move or rotate handle bar to open position. Lift lid above front block and remove from fryer. Depress lid lock and remove handle bar from lid. Save handle bar for reuse.

3. Remove lid lock from lid assembly.

4. Install new lid lock on lid.

5. Depress lid lock, replace handle bar and place unit back into service.

REPLACE LID VALVE ASSEMBLY (ITEM NO. 3)

Tools : Slotted Screwdriver 1/8".

Procedure:

1. **DANGER:** Turn off electrical power and disconnect electrical power supply. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**
2. Move or rotate handle bar to open position. Lift lid above front block and remove from fryer. Depress lid lock and remove handle bar from lid. Save handle bar for reuse
3. Remove lid lock from lid assembly end save for reuse.
4. Lift Lid and hold valve body with one hand. Grasp the lid valve retainer with the other hand and twist counterclockwise to loosen.
5. Remove lid valve retainer. Note that lid valve spring has closed coil on one end and open coil on the other. The open end goes toward the lid. Save spring and retainer for reuse.
6. Remove valve body and lower lid.
7. Lift lid and install new valve body on lid. Make sure the groove for the lid lock is toward the front. Lean the lid toward the back of the fryer.
8. Holding top part of valve with one hand, install spring, (open coil toward the lid). Using other hand turning clockwise, carefully screw retainer into valve body. Using only hand pressure, completely tighten retainer to valve body.
9. Lower lid and replace lid lock.
10. Depress lid lock, replace handle bar and place unit back into service

REPLACE HANDLE BAR CAM LOCK AND PRESSURE LOCK (ITEM NO. 2)

Tools : N/A

Procedure:

1. **DANGER:** Turn off electrical power and disconnect electrical power supply. If unit is hardwired **CIRCUIT BREAKER MUST BE OFF.**
2. Move or rotate handlebar to open position. Lift lid above front block and rcmovo from fryer Depress Lid lock and remove handle bar from lid.
3. Install new handle bar in lid assembly and place unit back into service.

REPLACE HEATER HOLDER (ITEM NO. 31)

Tools: Nut driver 7/16"; Rubber Mallet.

Procedure:

1. **DANGER:** Turn off electrical power and disconnect electrical power supply; drain shortening and allow to cool. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**
2. Remove lid from fryer.
3. Remove the two (2) nuts securing heater holder to cooking vessel wall.
4. Utilizing care not to damage heaters, remove heater holder.
5. Replace the two (2) nuts securing new heater holder to cooking vessel wall.
6. Utilizing care not to damage heaters, gently tap heaters with rubber mallet securing them in slots in heater holder.
7. Replace lid on fryer and place unit back into service.

REPLACE FUSE (ITEM NO. 53)

Tools: Phillips Screwdriver #2.

Procedure:

1. **DANGER:** Turn off electrical power and disconnect electrical power supply. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**
2. Remove the two screws securing eyebrow to relay panel and save for reuse.

CAUTION: Utilize care in preventing escutcheon from falling forward when removing screws in Step 3.

3. Remove the four (4) screws securing escutcheon to relay panel and save for reuse. Lower escutcheon slowly until secure open position.
4. Unscrew fuse cap from fuseholder.
5. Remove defective fuse from fuseholder.
6. Insert new fuse into fuseholder.
7. Screw fuse cap back onto fuseholder.

8. Replace the four (4) screws securing escutcheon to relay panel.
9. Replace the two (2) screws securing eyebrow to relay panel and place unit back into service.

REPLACE DANGER LABEL PANEL (ITEM NO. 7)

Tools: Phillips Screwdriver #2.

Procedure:

1. **DANGER:** Turn off electrical power, disconnect electrical power supply. If unit is hardwired, ***CIRCUIT BREAKER MUST BE OFF.***
2. Place lid in down position.
3. Remove the four(4) screws securing danger label panel to rear of fryer and save for reuse.
4. Replace the four (4) screws securing new danger label panel to rear of fryer and place unit back into service.

REPLACE WHEEL (ITEM NO. 25)

Tools: Open End Wrench - 1/2" (Qty - 2)

Procedure:

1. **DANGER:** Turn off electrical power, disconnect electrical power supply, drain shortening and allow to cool. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**
2. Remove lid from fryer.
3. Pad floor with cardboard and lay fryer over on side.
4. Remove nut and bolt securing wheel to bracket and save for reuse.
5. Replace nut and bolt securing new wheel to bracket.
6. Return fryer to upright position, replace lid and place unit back into service.

REPLACE VENT ASSEMBLY (ITEM NO. 44)

Tools: Slotted Screwdriver - 1/4”; Phillips Screwdriver #2; Needle Nose Pliers.

Procedure:

1. **DANGER:** Turn off electrical power, disconnect electrical power supply. If unit is

hardwired, **CIRCUIT BREAKER MUST BE OFF.**

CAUTION: Utilize care when removing muffler in Step 2. Muffler may contain very hot water.

2. Remove muffler and place in sink.

3. Lift and remove vent back.

4. Remove the seven (7) screws securing Danger Label panel and either left or right back panel (Servicer preference) to rear of fryer and save for reuse.

5. Remove weight from weight lifter.

6. Disconnect the two (2) vent solenoid wires from harness wires at insulated terminals (See Figure 10).

7. Remove the four (4) screws securing vent block to vent assembly. Save screws, block and ball (if applicable) for reuse.

   NOTE: Some 4-Head and 6-Head models utilize a stainless steel vent ball (Located on vent block) with weight to regulate pressure.

8. Remove vent tube O-ring and save for reuse (See Figure 11).

9. Remove the four (4) screws securing vent assembly to rear of fryer and save for reuse. Leave vent block nut plate of vent tube for further use.

10. Line up hole in new vent assembly with vent tube and replace the four (4) screws securing assembly to rear of fryer. **NOTE:** Vent tube must protrude through vent assembly at least 1/2" (See Figure 12).

11. Place O-ring on vent tube and slide back against vent assembly.

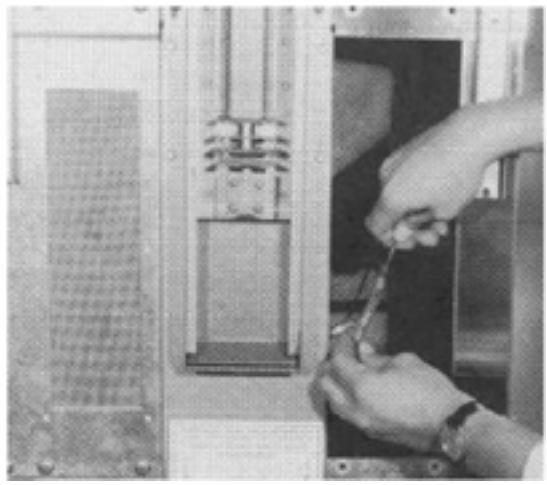


FIG. 10

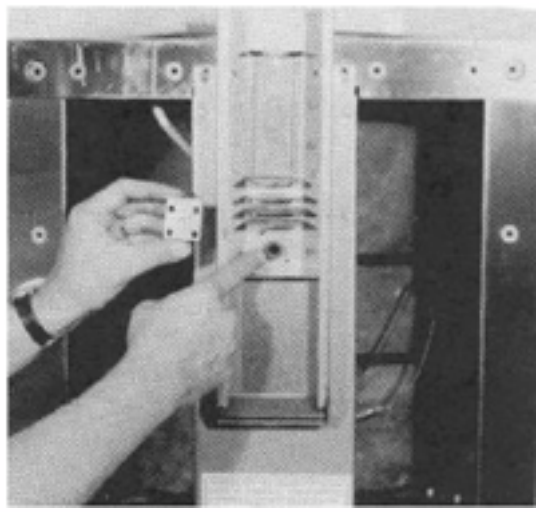


FIG. 11

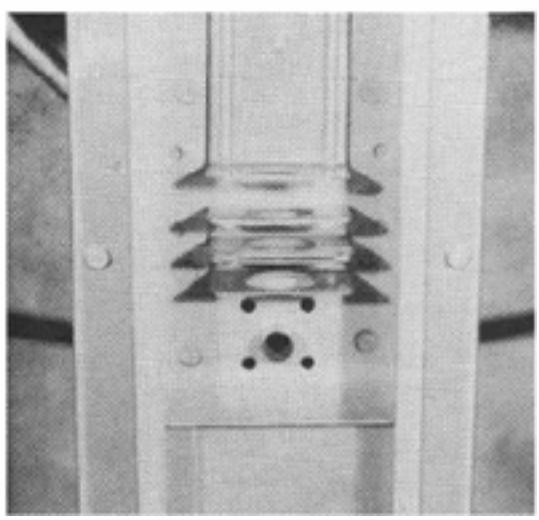


FIG. 12

CAUTION: Prior to applying final torque to screws in Step 12, verify solenoid wires are not pinched between nut plate and vent assembly. This could create a shorted circuit causing potential equipment damage and /or personal injury.

12. Place vent block on vent tube, line up nut plate behind vent assembly and replace the four (4) screws securing block to vent tube and vent assembly.

13. Connect vent solenoid wires to harness wires at insulated terminals.

14. Drop vent ball (if applicable) down through waffle onto vent block.

15. Insert weight into weight lifter.

16. Place vent back onto vent assembly.

17. Replace the seven (7) screws securing Danger Label panel and back panel to rear of fryer.

18. Place muffler on fryer and place unit back into service.

REPLACE TEFLON SLIDE (ITEM NO. 62)

Tools: Phillips Screwdriver #2; Needle nose pliers.

Procedure:

1. **DANGER:** Turn off electrical power and disconnect electrical power supply. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**

CAUTION: Utilize caution when removing muffler in Step 2. Muffler may contain very hot water.

2. Remove muffler and place in sink.

3. Lift and remove vent back.

4. Remove the seven (7) screws securing Danger Label panel and either left or right back panel (Servicer preference) to rear of fryer and save for reuse.

5. Remove weight and save for reuse.

6. Disconnect the two (2) vent solenoid wires from harness wires at insulated terminals (See Figure 13).

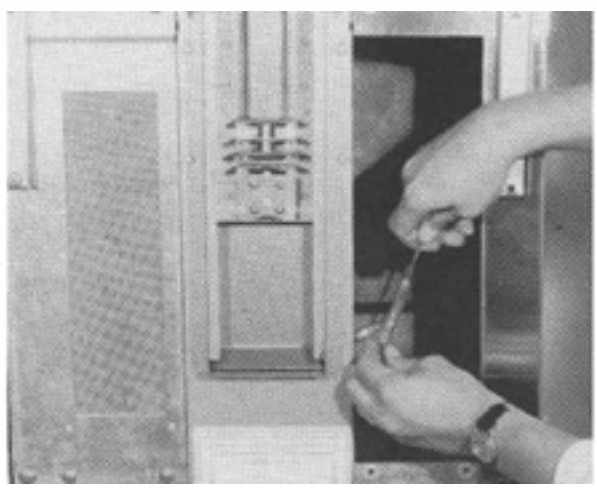


FIG. 13

7. Remove the four (4) screws securing vent block and ball (if applicable) to vent assembly. Save screws, block and ball (if applicable) for reuse .

NOTE: Some 4-Head and 6-Head models utilize a stainless steel vent ball (located on vent block) with weight to regulate pressure.

8. Remove vent tube O-ring and save for reuse (See Figure14).

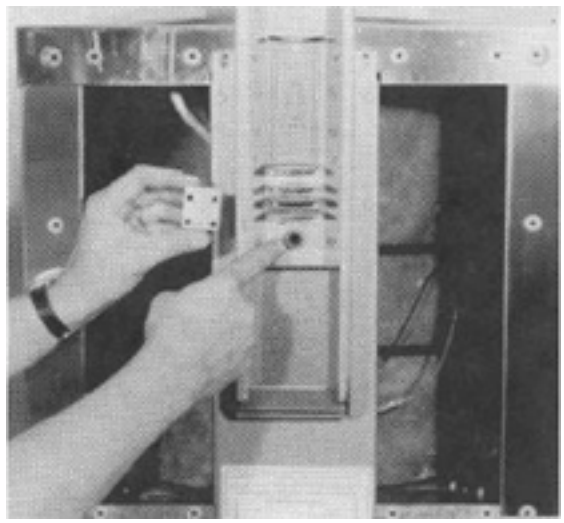


FIG.14

9. Remove the four (4) screws securing vent assembly to rear of fryer and save for reuse. Leave vent block nut plate on vent tube for further use.

10. Remove vent spring and save for reuse. Note how spring is mounted to bracket and weight lifter to ensure proper installation when replaced.

11. Remove cotter pin releasing solenoid plunger from weight lifter. Save cotter pinfor reuse.

12. Remove weight lifter and save for reuse.

13. Remove damaged or worn teflon slide from lifter arm and replace with new teflon slide.

14. With teflon slide in place and weight lifter in upright position, insert weight lifter arm through slot in vent assembly. Insert cotter pin through solenoid plunger and weight lifter arm. Secure cotter pin in place by bending (See Figure 15).

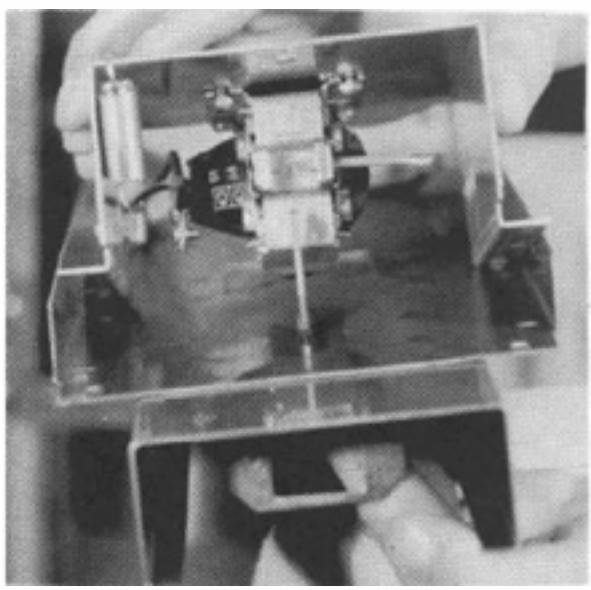


FIG.15

15. Replace vent spring securing weight lifter to solenoid bracket. Vent spring is mounted between notch in top of vent solenoid bracket and hole in weight lifter arm.

NOTE: Utilize care in preventing spring from twisting when replacing. If twisted, undue tension produced could result in a chattering noise and pressure reduction during cook cycle.

16. Manually depress and release weight lifter several times to ensure smooth unrestricted travel prior to reassembly.

17. Replace the four (4) screws securing vent assembly to rear of fryer. **NOTE:** Vent tube must protrude through vent assembly at least l/2" (See Figure 16).

18. Connect the two (2) solenoid wires to harness wires.

19. Place O-ring over vent tube and slide back against vent assembly.

CAUTION: Prior to applying final torque to screws in Step 20, verify solenoid wires are not pinched between nut plate and vent assembly. This could create a shorted circuit causing potential equipment damage and/or personal injury.

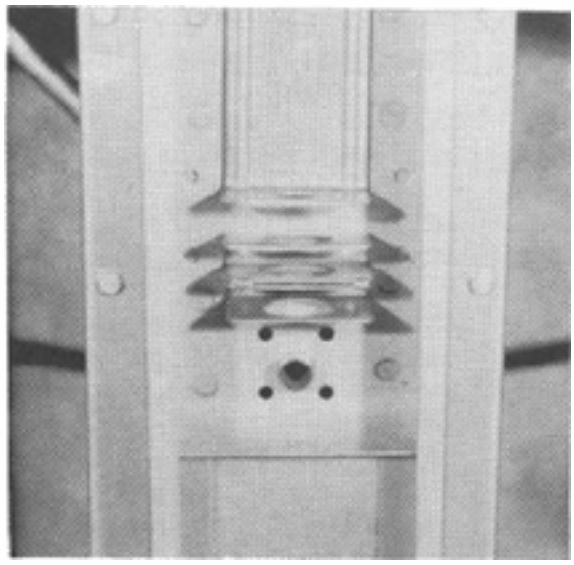


FIG. 16

20. Place vent block on vent tube, line up nut plate behind vent assembly and replace the four (4) screws securing block onto vent tube and vent assembly.

21. Drop vent ball (if applicable) down through waffle onto vent block.

22. Place weight down in weight lifter.

23. Place vent back onto vent assembly.

24. Replace the seven (7) screws securing back panel and Danger Label panel to rear of fryer.

25. Place muffler onto vent back and place unit back into service.

REPLACE COTTER PIN (ITEM NO. 60)

Tools: Phillips Screwdriver #2; Needle Nose Pliers.

Procedure:

1. **DANGER:** Turn off electrical power and disconnect electrical power supply. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**

CAUTION: Utilize care when removing muffler in Stop 3. Muffler may contain very hot water.

2. Remove muffler and place in sink.

3. Lift and remove vent back.

4. Remove the seven (7) screws securing Danger Label panel and either left or right back panel (Servicer preference) to rear of fryer.

5. Remove weight from weight lifter.

6. Disconnect the two (2) vent solenoid wires from harness wires at insulated terminals (See Figure 17).

7. Remove the four (4) screws securing vent block to vent assembly. Save screws, block and ball (if applicable) for reuse.

   NOTE: Some 4-Head and 6-Head models utilize a stainless steel vent ball (located on vent block) with weight to regulate pressure.

8. Remove vent tube O-ring and save for reuse (See Figure 18).

9. Remove the four (4) screws securing vent assembly to rear of fryer and save for reuse. Leave vent block nut plate on vent tube for further use.

10. Remove vent spring and save for reuse. Note how spring is mounted to bracket and weight lifter to ensure proper installation when replacing.

11. Remove defective cotter pin releasing weight lifter arm from solenoid plunger.

12. Install new cotter pin in solenoid plunger capturing weight lifter. Spread cotter pin to prevent disengagement of plunger and lifter arm.

13. Replace vent spring securing weight lifter to solenoid bracket. Vent spring is mounted between notch in top of vent solenoid bracket and hole in weight lifter arm.

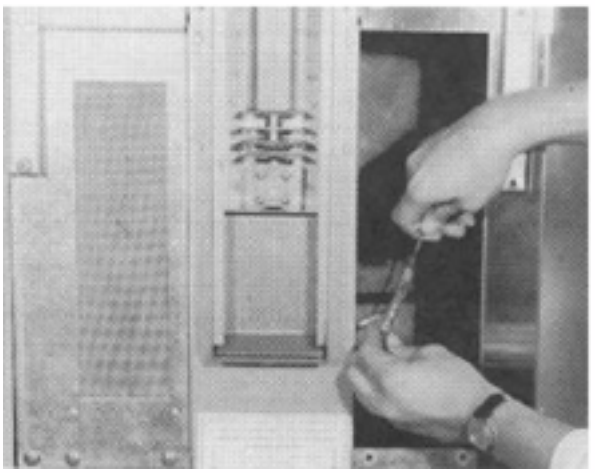


FIG. 17

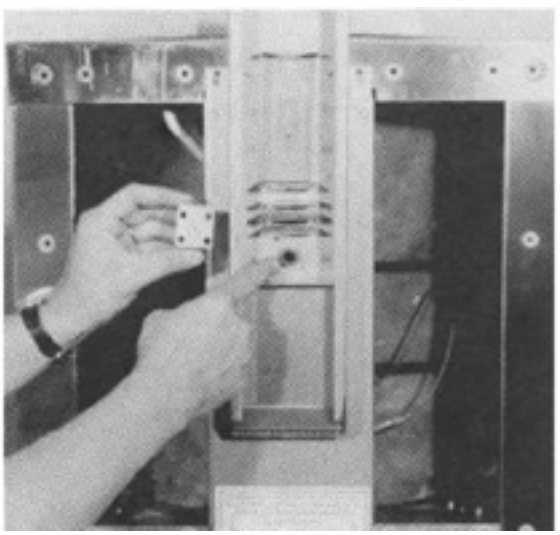


FIG. 18

NOTE: Utilize care in preventing spring from twisting when replacing. This could create undue tension resulting in a loud chattering noise and pressure reduction during cook cycle.

14. Manually depress and release weight lifter several times to ensure smooth unrestricted travel prior to reassembly.

15. Replace the four (4) screws securing vent assembly to rear of fryer. NOTE: Vent tube must protrude through vent assembly at least 1/2" (See Figure 19).

16. Place O-ring over vent tube and slide back against vent assembly.

17. Replace vent block on vent tube and replace four screws securing vent block to vent assembly. Be careful to align the vent block square with the bottom of the weight lifter.

18. Connect vent solenoid wires to harness wires at insulated terminals.

19. Drop vent ball (if applicable) down through waffle onto vent block.

20. Place weight down in weight lifter.

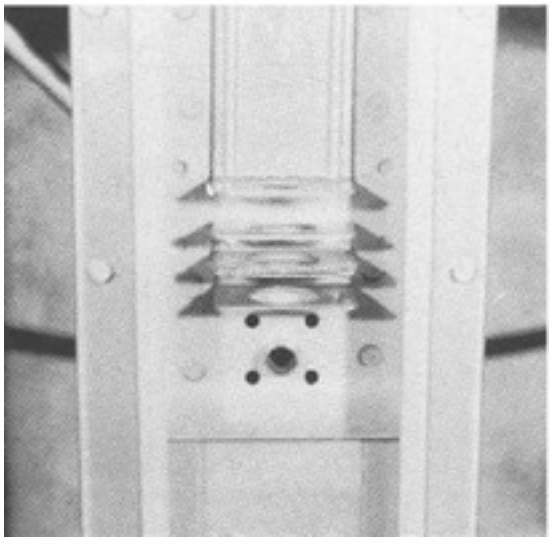


FIG. 19

21. Place vent back onto vent assembly.

22. Replace the seven (7) screws securing back panel and Danger Label panel to fryer.

23. Place muffler onto vent back and place unit back into service.

REPLACE VENT TUBE O-RING (ITEM NO. 43)

Tools: Phillips Screwdriver # 2; Needle Nose Pliers.

Procedure:

1. **DANGER:** Turn off electrical power and disconnect electrical power supply. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**

CAUTION: Utilize care when removing muffler in Step 2. Muffler may contain very hot water.

2. Remove muffler and place in sink.

3. Lift and remove vent back.

4. Rmove the seven (7) screws securing Danger Label panel and either left or right back panel (Servicer preference) to rear of fryer and save for reuse.

5. Remove weight from weight lifter.

6. Remove the four (4) screws securing vent block to vent assembly. Save screws, block and ball (if applicable) for reuse.

NOTE: Some 4-Head and 6-Head models utilize a stainless steel vent ball (located on vent block) with weight to regulate pressure.

7. Remove defective vent tube O-ring and discard (See Figure 20).

8. Install new O-ring on vent tube.

CAUTION: Prior to applying final torque to screws in Step 9, verify solenoid wires are not pinched between nut plate and vent assembly. This could create as shorted circuit causing possible equipment damage and/or personal injury.

9. Place vent block on vent tube, line up nut plate behind vent assembly and replace the four (4) screws securing block to vent tube and vent assembly.

10. Drop vent ball (if applicable) down through waffle onto vent block.

11. Place weight down in weight lifter.

12. Place vent back onto vent assembly.

13. Replace the seven (7) screws securing back panel and Danger Label panel to fryer.

14. Place muffler onto vent back and place unit back into service.

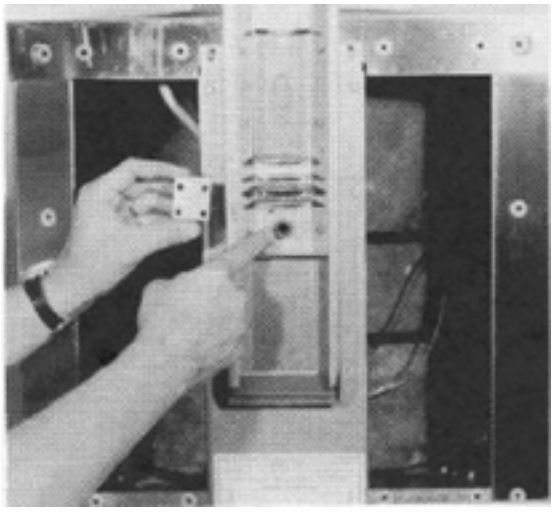


FIG. 20

REPLACE WEIGHT LIFTER (ITEM NO. 61)

Tools: Slotted Screwdriver; Phillips Screwdriver #2; Needle Nose Pliers.

Procedure:

1. **DANGER:** Turn off electrical power and disconnect electrical power supply. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**

CAUTION: Utilize care when removing muffler in Step 2. Muffler may contain very hot water.

2. Remove muffler and place in sink.
3. Lift and remove vent back and save for reuse.
4. Remove weight and save for reuse.
5. Remove the seven (7) screws securing Danger Label panel and back panel on either left or right hand side (servicer preference) and save for reuse. Remove back panel.
6. Disconnect the two (2) vent solenoid wires from harness wires at insulated terminals (See Figure 21).
7. Remove the four (4) screws securing vent block and ball (if applicable) to vent assembly. Save screws, block and ball (if applicable) for reuse.

   NOTE: Some 4-Head and 6-Head models utilize a stainless steel vent ball (located on vent block) with weight to regulate pressure.

8. Remove vent tube O-ring.
9. Remove the four (4) screws securing vent assembly to rear of fryer and save for reuse. Remove vent assembly.
10. Remove.vent spring and save for reuse
11. Remove vent solenoid cotter pin and save for reuse.
12. Remove defective weight lifter assembly.

    With teflon slide in place and weight lifter in upright position, insert weight lifter arm through slot in vent assembly. Insert cotter pin through solenoid and weight lifter arm. Secure cotter pin in place by bending (See Figure 22).

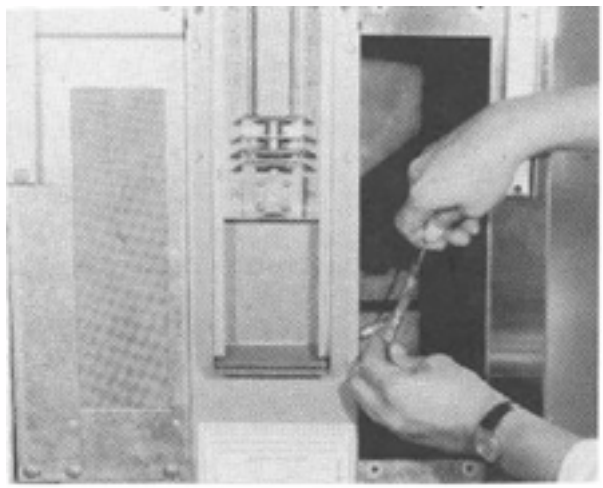


FIG. 21

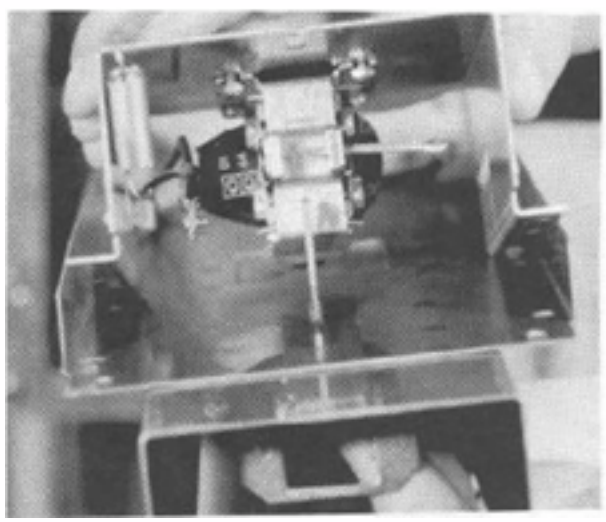


FIG. 22

14. Replace vent spring securing weight lifter to solenoid bracket. Vent spring is mounted between notch in top of vent solenoid bracket and hole in weight lifter arm.

    NOTE: Utilize care in preventing spring from twisting when replacing. If twisted, undue tension produced could result in a chattering noise and pressure reduction during cook cycle.

15. Manually depress and release weight lifter several times to ensure smooth unrestricted travel prior to reassembly.

16. Replace the four (4) screws securing vent assembly to rear of fryer. **NOTE:** Vent tube must protrude through vent assembly at lease 1/2" (See Figure 23).

17. Connect the two (2) solenoid wires to harness wires.

18. Place O-ring over vent tube and slide back against vent assembly.

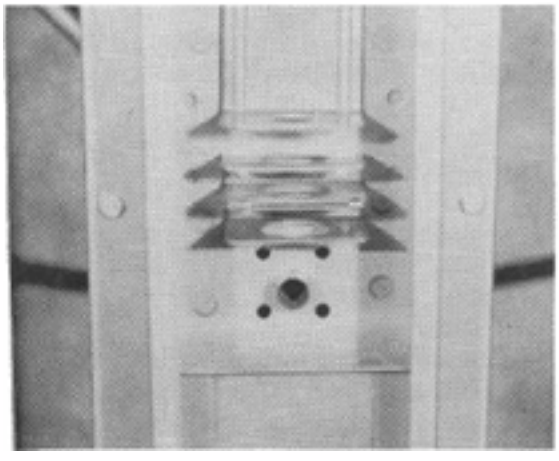


FIG. 23

CAUTION: Prior to applying final torque to screws in Step 19,verify solenoid wires are not pinched between nut plate and vent assembly. This could create a shorted circuit causing potential equipment damage and/or personal injury.

19. Place vent block on vent tube, line up nut plate behind vent assembly and replace the four (4) *crews securing block onto vent tube and vent assembly.

20. Drop vent ball (if applicable) down through waffle onto vent block.

21. Place weight down in weight lifter.

22. Place vent back onto vent assembly.

23. Replace the seven (7) screws securing back panel and Danger Label panel to rear of fryer.

24. Place muffler onto vent back and place unit back into service.

REPLACE VENT TUBE (ITEM NO. 56)

Tools: Slotted Screwdriver; Phillips Screwdriver #2; Silicone Sealant; Open End Wrench - 13/16"

Procedure:

1. **DANGER:** Turn off electrical power and disconnect electrical power supply. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**

CAUTION: Utilize care when removing muffler in Step 2. Muffler may contain very hot water.

2. Remove muffler and place in sink
3. Lift and remove vent back and save for reuse.
4. Remove the 14 screws securing Danger Label panel and rear panels to side panels. Save panels and screws for reuse.
5. Remove weight from weight lifter and save for reuse.
6. Disconnect the two (2) vent solenoid wires from harness wires at insulated terminals (See Figure 24).
7. Remove the four (4) screws securing vent block and ball (if applicable) to vent assembly. Save screws, block and ball (if applicable) for reuse.

   NOTE: Some 4-Head and 6-Head models utilize a stainless steel vent ball (located on vent block) with weight to regulate pressure.

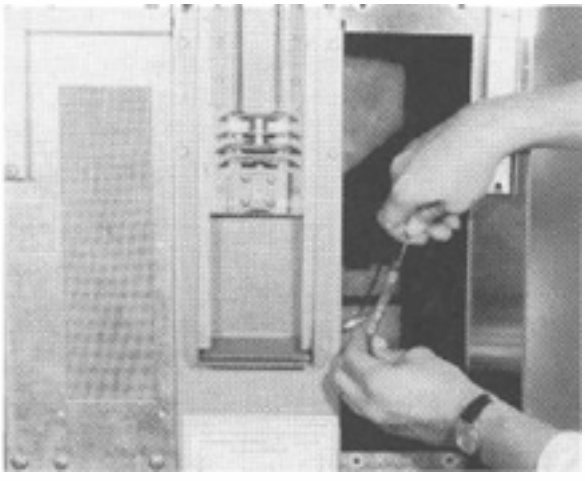


FIG. 24

8. Remove vent tube O-ring.
9. Remove the four (4) screws securing vent assembly to rear of fryer. Remove vent assembly and vent block nut plate. Save screws, vent assembly and nut plate for reuse.
10. Remove compression nut securing vent tube to cooking vessel. Note position of vent tube prior to removal to ensure proper installation of new tube. Remove vent tube, ferrule and nut.
11. Place compression nut over correct end of new vent tube. Place ferrule on vent tube in front of compression nut and insert in bushing of cooking vessel. Apply silicone sealant around ferrule then start compression nut. **DO NOT TIGHTEN**. Place nut plate on vent tube.
12. Place vent assembly on rear of fryer noting position of vent tube. Adjust vent tube **WITHOUT BENDING** matching end of tube with hole in vent assembly. Replace the four (4) screws securing vent assembly to rear of fryer. **NOTE**: Vent tube must protrude through vent assembly at least l/2" (See Figure 25).
13. Tighten compression nut securing vent tube to cooking vessel.
14. Connect vent solenoid wires to harness wires.
15. Place O-ring over vent tube and slide back against vent assembly.

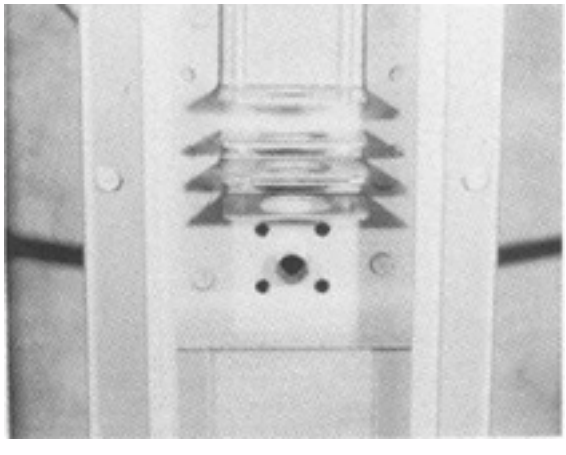


FIG. 25

CAUTION: Prior to applying final torque to screws in Step 16, verify solenoid wires are not pinched between nut plate and vent assembly. This could create a shorted circuit causing potential equipment damage and/or personal injury.

16. Place vent block on vent tube. Line up nut plate behind vent assembly and replace the four (4) screws securing block to vent tube and vent assembly.

17. Drop vent ball (if applicable) down through waffle onto vent block.

18. Place weight down in weight lifter.

19. Place vent back onto vent assembly.

20. Replace the 14 screws securing back panels and Danger Label panel to rear of fryer.

21. Place muffler onto fryer and place unit back into service.

REPLACE WEIGHT (ITEM NO. 38)

Tools: N/A

Procedure:

1. **DANGER :** Turn off electrical power and disconnect electrical power supply. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**

CAUTION: Utilize care when removing muffler in Step 2. Muffler may contain very hot water.

2. Remove muffler and place in sink.

3. Lift and remove vent back.

4. Remove defective weight from weight lifter.

5. Insert new weight into weight lifter.

6. Place vent back onto vent assembly.

7. Place muffler onto fryer and place unit back into service.

REPLACE HINGE BLOCK (REAR) (ITEM NO. 29)

Tools: Phillips Screwdriver #2; Slotted Screwdriver; Box End Wrench - 9/I6"; Open End Wrench - 1-3/16"; Putty Knife; Hammer; Gloves.

Procedure

1. **DANGER:** Turn off electrical power and disconnect electrical power supply. If unit is hardwired, CIRCUIT BREAKER MUST BE OFF.

CAUTION: Utilize care when removing muffler in Step 2. Muffler may contain very hot water.

2. Remove muffler and place in sink.
3. Remove lid from fryer.
4. Lift and remove vent back.
5. Remove weight from weight lifter.
6. Remove the 14 screws securing Danger Label panel and back panels to fryer. Save screws and panels for reuse.
7. Disconnect the two (2) vent solenoid wires from harness wires at insulated terminals (See Figure 26).
8. Remove the four (4) screws securing vent block to vent assembly. Save screws, block and ball (if applicable) for reuse.

   NOTE: Some 4-Head and 6-Head models utilize a stainless steel vent ball (located on vent block) with weight to regulate pressure.

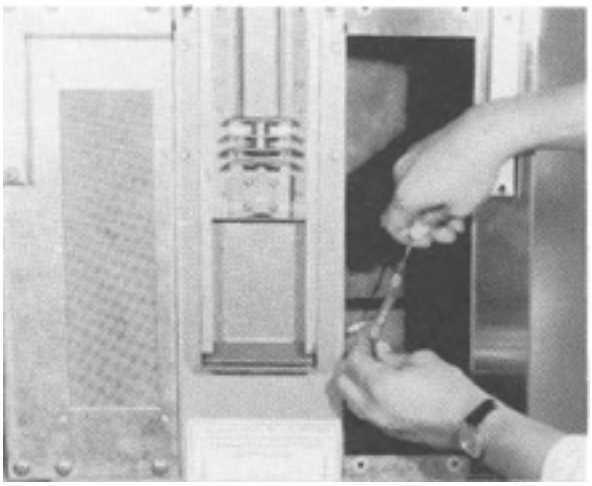


FIG. 26

9. Remove vent tube O-ring and save for reuse.
10. Remove the four (4) screws securing vent assembly to rear of fryer. Remove vent assembly and vent block nut plate. Save screws, vent assembly and nut plate for reuse.

CAUTION: Utilize care when performing Step 11. Do to location and amount of torque required to remove nuts, wear gloves for protection in case of wrench slipping.

11. Remove compression nut securing vent tube to cooking vessel. Note position of tube prior to removal to ensure proper reinstallation. Remove vent tube and save for reuse.
12. Remove the three (3) nuts securing rear block to top of fryer. Remove defective rear block.
13. Remove any residue of old silicone sealant from top of fryer.
14. Apply silicone sealant to entire base of new rear block and mount on fryer. Place lock washers on bolts and tighten the three (3) nuts securing rear block to fryer.
15. Place compression nut over correct end of vent tube. Place ferrule on vent tube in front of compression nut and insert in bushing of cooking vessel. Apply silicone sealant around ferrule then start compression nut. **DO NOT TIGHTEN.**

16. Place vent assembly on rear of fryer noting position of vent tube. Adjust vent tube **WITHOUT BENDING** matching end of tube with hole in vent assembly. Replace the four (4) screws securing vent assembly to rear of fryer. **NOTE:** Vent tube must protrude through vent assembly at least 1/2" (See Figure 27).

17. Tighten compression nut securing vent tube to cooking vessel.

18. Connect vent solenoid wires to harness wires.

19. Place o-ring over vent tube and slide back against vent assembly.

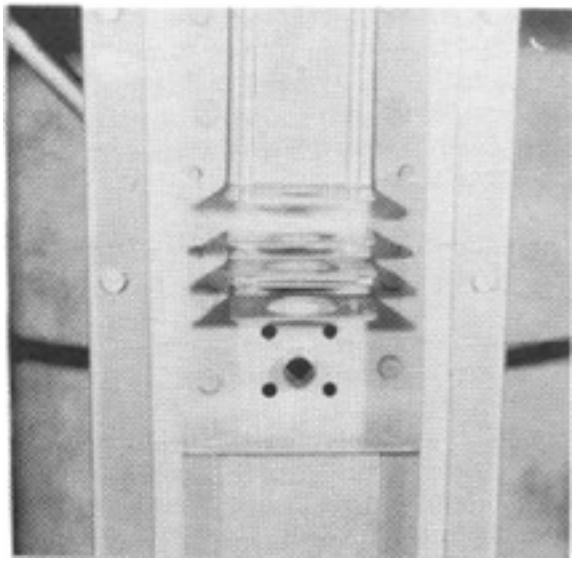


FIG.27

CAUTION: Prior to applying final torque to screws in Step 20, verify solenoid wires are not pinched between nut plate and vent assembly. This could create a shorted circuit causing potential equipment damage and/or personal injury.

20. Place vent block on vent tube. Line up nut plate behind vent assembly and replace the four (4) screws securing block to vent tube and vent assembly.

21. Drop vent ball (if applicable) down through waffle onto vent block.

22. Place weight down in weight lifter.

23. Place vent back onto vent assembly.

24. Replace the 14 screws securing back panels and Danger Label panel to rear of fryer.

25. Place muffler onto vent back.

26. Place lid on fryer and put unit back into service.

REPLACE VENT SPRING (ITEM NO. 58)

Tools: Phillips Screwdriver #2; Slotted Screwdriver; Needle Nose Pliers.

Procedure:

1. **DANGER:** Turn off electrical power and disconnect electrical power supply. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**

CAUTION: Utilize care when removing muffler in Step 2. Muffler may contain very hot water.

2. Remove muffler and place in sink.

3. Lift and remove vent back.

4. Remove the seven (7) screws securing Danger Label panel and right rear panel to fryer. Save panels and screws for reuse.

5. Remove weight from weight lifter and save for reuse.

6. Disconnect the two (2) vent solenoid wires from harness wires at insulated terminals (See Figure 23).

7. Remove the four (4) screws securing vent block to vent assembly. Save screws, block and ball (if applicable) for reuse.

   NOTE: Some 4-Head and 6-Head models utilize a stainless steel vent ball (located on vent block) with weight to regulate pressure

8. Remove vent tube O-ring and save for reuse (See Figure 29).

9. Remove the four (4) screws securing vent assembly to rear of fryer and save for reuse. Leave vent block nut plate on vent tube for further use.

10. Remove defective vent spring and discard.

11. Replace vent spring securing weight lifter to solenoid bracket. Vent spring is mounted between notch in top of vent solenoid bracket and hole in weight lifter arm.

12. Manually depress and release weight lifter several times to ensure smooth, unrestricted travel prior to reassembly.

13. Replace the four (4) screws securing vent assembly to rear of fryer. **NOTE:** Vent tube must protrude through vent assembly at least l/2" (See Figure 30).

14. Connect the two (2) solenoid wires to harness wires.

16. Place O-ring over vent tube and slide back against vent assembly.

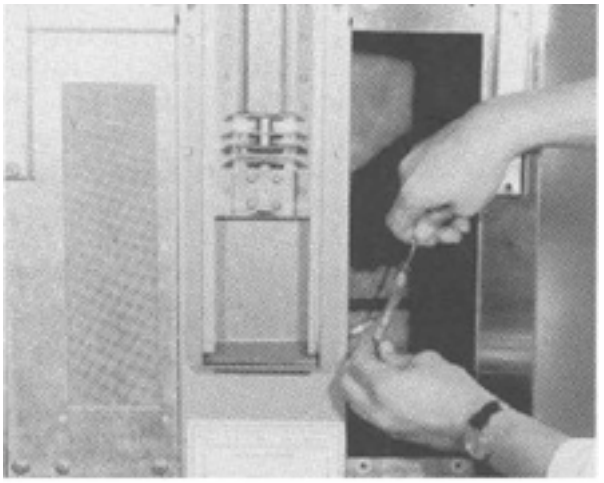


FIG.28

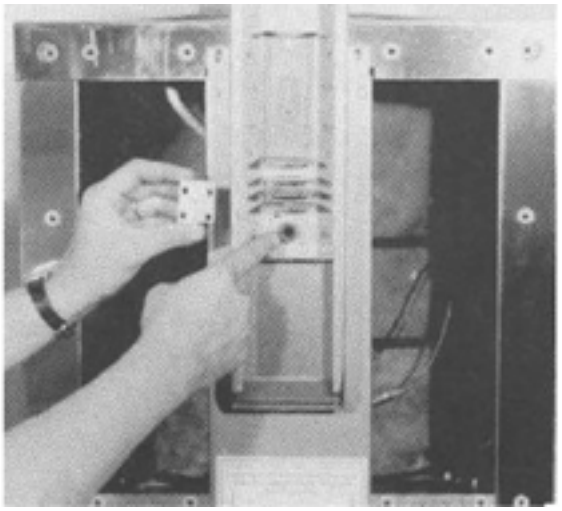


FIG.29

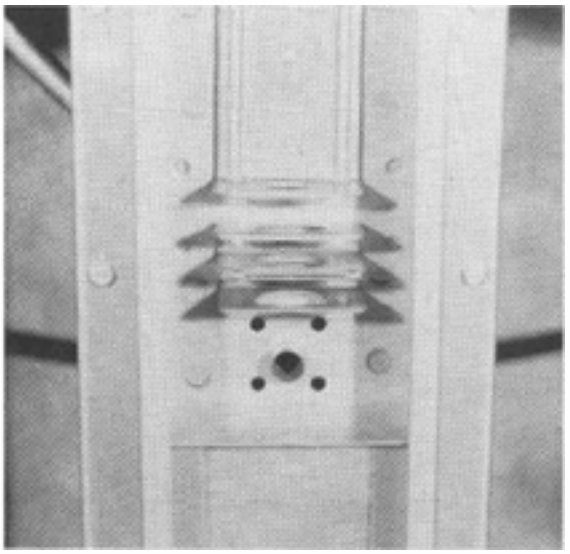


FIG.30

CAUTION: Prior to applying final torque to screws, verify solenoid wires are not pinched between nut plate and vent assembly. This could create a shorted circuit causing potential equipment damage and/or personal injury.

16. Place vent block on vent tube, line up nut plate behind vent assembly and replace the four (4) screws securing block to vent tube and vent assembly.

17. Drop vent ball (if applicable) down through waffle onto vent block.

18. Place weight down in weight lifter.

19. Place vent back onto vent assembly.

20. Replace the seven (7) screws securing back panel and Danger Label panel to fryer.

21. Place muffler onto vent back and place unit back into service.

REPLACE VENT SOLENOID (ITEM NO. 59)

Tools: Phillips Screwdriver #2; Slotted Screwdriver; Nut Driver - 5/16"; Nut Driver 3/16".

Procedures:

1. **DANGER:** Turn off electrical power and disconnect electrical power supply. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**

CAUTION: Utilize care when removing muffler in Step 2. Muffler may contain very hot water.

2. Remove muffler and place in sink.

3. Lift and remove vent back.

4. Remove the seven (7) screws securing Danger Label panel and right rear panel to fryer. Save panels and screws for reuse.

5. Remove weight from weight lifter.

6. Disconnect the two (2) vent solenoid wires from harness wires at insulated terminals (See Figure 31).

7. Remove the four (4) screws securing vent block to vent assembly. Save screws, block and ball (if applicable) for reuse.

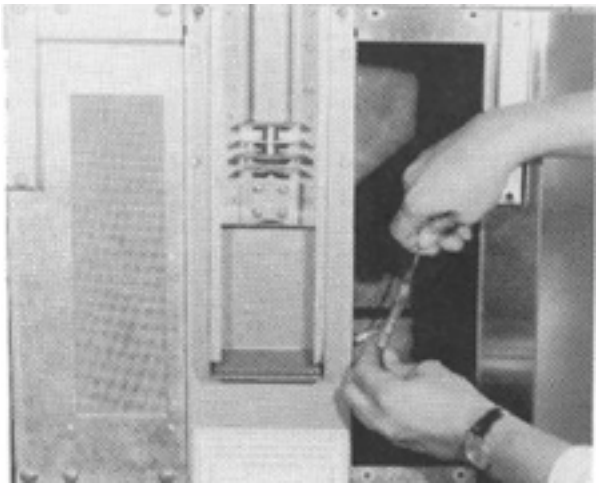


FIG.31

NOTE: Some 4-Head and 6-Head models utilize a stainless steel vent ball (located on vent block) with weight to regulate pressure.

8. Remove vent tube O-ring and discard (See Figure 32).

9. Remove the four (4) screws securing vent assembly to rear of fryer and save for reuse. Leave vent block nut plate on vent tube for further use.

10. Remove vent spring and save for reuse. Note how spring is mounted to bracket and weight lifter to ensure proper installation when replaced.

11. Remove cotter pin releasing solenoid arm from weight lifter.

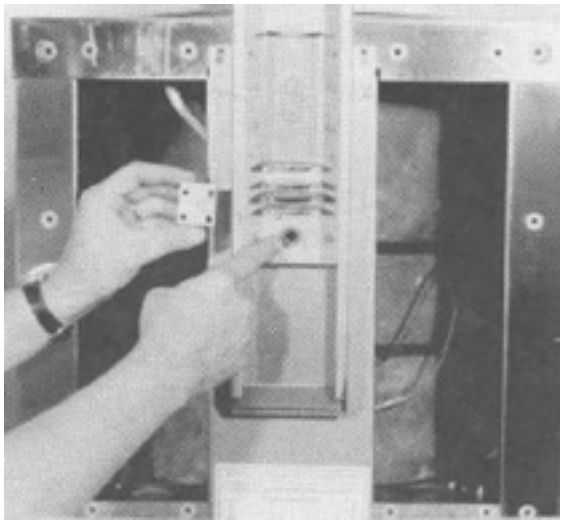


FIG. 32

12. Remove the four (4) screws securing solenoid bracket to vent assembly. Save screws and nuts for reuse.

13. Remove the four (4) screws securing solenoid to bracket. Save screws and nuts for reuse.

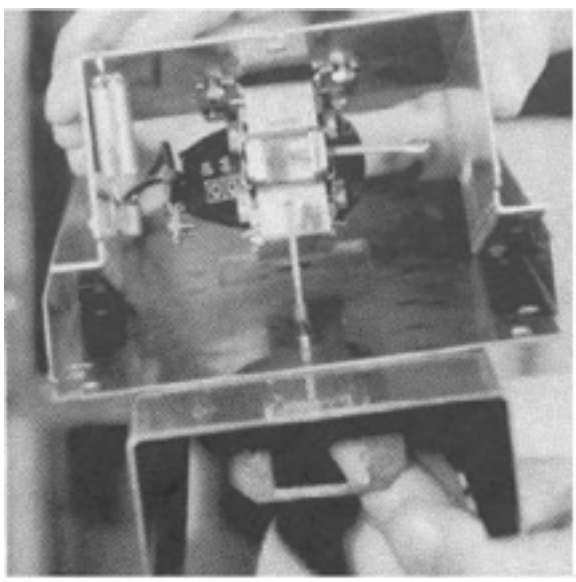
14. Transfer wires from coil of defective solenoid to coil of new solenoid.

15. Replace the four (4) screws and nuts securing new solenoid to bracket.

16. Replace the four (4) screws and nuts securing solenoid bracket to vent assembly.

17. With teflon slide in place and weight lifter in upright position, insert weight lifter arm through slot in vent assembly. Insert cotter pin through holes in solenoid and weight lifter arm. Secure cotter pin by bending (See Figure 33).

18. Replace vent spring securing weight lifter to solenoid bracket. Vent spring is mounted between notch in top of vent solenoid bracket and hole in weight lifter arm.



FUG.33

NOTE: Utilize care in preventing spring from twisting when replacing. If twisted, undue tension produced could result in a chattering noise and pressure reduction during cook cycle.

19. Manually depress and release weight lifter several times to ensure smooth unrestricted travel prior to reassembly.

20. Replace the four (4) screws securing vent assembly to rear of fryer. NOTE: Vent tube must protrude through vent assembly at least 1/2" (See Figure 34).

21. Connect the two (2) solenoid wires to harness wires.

22. Place new O-ring over vent tube and slide back against vent assembly.

CAUTION: Prior to applying final torque to screws in Step 23, verify solenoid wires are not pinched between nut plate and vent assembly. This could create a shorted circuit causing potential equipment damage and/or personal injury.

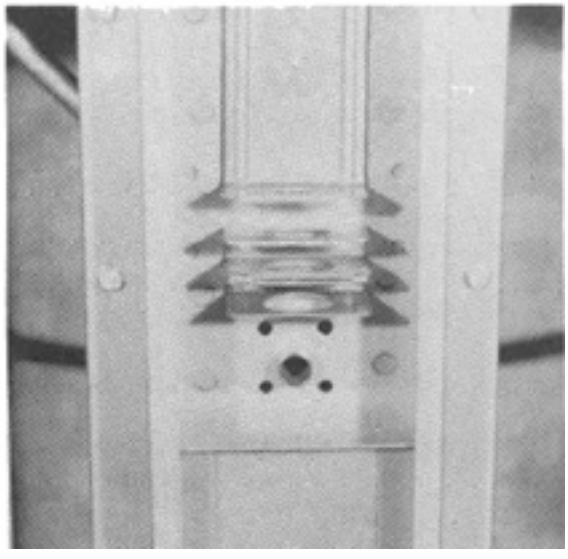


FIG. 34

23. Place vent block on vent tube, line up nut plate behind vent assembly and replace the four (4) screws securing block to vent tube and vent assembly.

24. Drop vent ball (if applicable) down through waffle onto vent block.

25. Place weight down in weight lifter.

26. Place vent back onto vent assembly.

27. Replace the seven (7) screws securing back panel and Danger Label panel to rear of fryer.

28. Place muffler onto fryer and place unit back into service.

REPLACE DRAIN VALVE (ITEM NO. 13)

Tools: Nut Driver - 5/16”; Open End Wrench - 7/l6”; Wrench - l-3/16”.

Procedure:

1. **DANGER:** Turn off electrical power, disconnect electrical power supply, drain shortening and allow to cool. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**

2. Remove nut securing drain valve extension handle to drain valve and save for reuse

3. Remove the two (2) screws securing locking plate to drain valve bracket and save for reuse.

4. Remove drain valve.

CAUTION: Utilize care not to apply too much torque to drain valve in Step 4 causing bushing connected to fryer to crack or separate from cone.

5. Place locking plate over new drain valve. Note location of holes in drain valve bracket. Holes in locking plate when placed over drain valve must line up with holes in bracket.

6. Apply pipe sealant to threads of new drain valve.

7. Insert new drain valve through bracket and secure to cooking vessel.

8. Replace screws and nuts securing locking plate to bracket.

9. Replace nut securing drain valve extension handle to drain valve.

CAUTION: Make sure drain valve is closed (handle in UP position) prior to filling with shortening.

REPLACE INDICATOR LAMP (ITEM NO. 10, 11, 19)

Tools: Phillips Screwdriver #2; Needle Nose Pliers.

Procedure:

1. **DANGER:** Turn off electrical power and disconnect electrical power supply. If unit is hardwired, **CIRCUIT BREAKER MUST BE OFF.**

2. Remove the two (2) screws securing eyebrow to relay panel and save for reuse.

   CAUTION: Utilize care in preventing escutcheon from falling forward when removing screws in step 3.

3. Remove the four (4) screws securing escutcheon to relay panel and save for reuse. Lower escutcheon slowly until secure in open position.

4. Remove wires connected to indicator lamp.

5. Using needle nose pliers, depress retaining ears while pushing indicator lamp through escutcheon.

6. Insert new indicator lamp through escutcheon until retaining ears open, securing lamp to escutcheon.

7. Connect wires to new indicator lamp.

8. Replace the four (4) screws securing escutcheon to relay panel.

9. Replace the two (2) screws securing eyebrow to relay panel and place unit back into service.

REPLACE VENT BLOCK (ITEM NO. 39)

Tools: Slotted Screwdriver; Phillips Screwdriver #2.

Procedure:

1. **DANGER:** Turn off electrical power and disconnect electrical power supply. If unit is hardwired **CIRCUIT BREAKER MUST BE OFF.**

CAUTION: Utilize care when removing muffler in Step 2. Muffler may contain very hot water.

2. Remove muffler and place in sink.
3. Lift and remove vent back.
4. Remove the seven (7) screws securing Danger Label panel and back panel on either left or right hand side (servicer preference) and save for reuse. Remove back panel.
5. Remove weight from weight lifter.
6. Remove the four (4) screws securing vent block to vent assembly. Remove block, ball (if applicable) and O-ring.

NOTES:

Some 4-Head and 6-Head models utilize a stainless steel vent ball (located on vent block) with weight to regulate pressure.

Each new vent block kit contains replacement screws and a vent block nut plate. Servicer must use own discretion whether nut plate must be replaced. If nut plate must be replaced, remove the four (4) screws securing vent assembly to rear of fryer and save for reuse. Remove vent assembly being careful not to apply tension to vent solenoid wires. Remove defective nut plate and discard. Place new nut plate on vent tube. Place vent assembly back onto rear of fryer making sure vent tube protrudes through vent assembly at least 1/2" (See Figure 35). Replace the four (4) screws securing vent assembly to rear of fryer. If nut plate does not need replacing, proceed to Step 7.

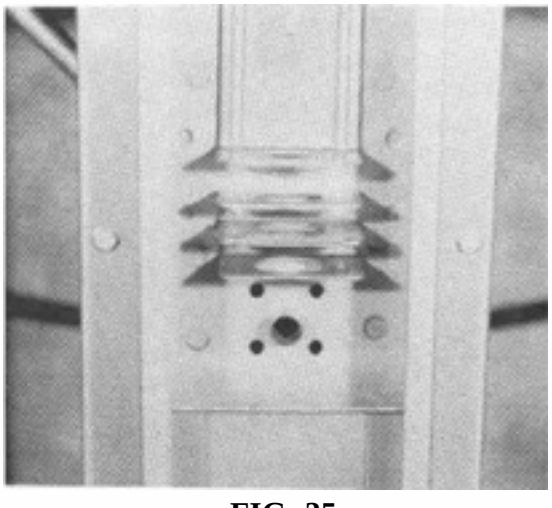


FIG. 35

7. Place new O-ring over vent tube and slide back against vent assembly.

CAUTION: Prior to applying final torque to screws in Step 8, verify solenoid wires are not pinched between nut plate and vent assembly. This could create a shorted circuit causing potential equipment damage and/or personal injury.

8. Place vent block on vent tube, line up nut plate behind vent assembly and replace the four (4) screws securing block to vent tube and vent assembly.

9. Drop vent ball (if applicable) down through waffle onto vent block.

10. Insert weight into weight lifter.

11. Place vent back onto vent assembly.

12. Place muffler on fryer and place unit back into service.

REPLACE LATCH BLOCK (FRONT) (ITEM NO. 8)

Tools: Phillips Screwdriver #2; Box End Wrench - 9/16"; Silicone Sealant; Hammer; Putty Knife.

Procedure:

1. **DANGER:** Turn off electrical power and disconnect electrical power supply. If unit is hardwired **CIRCUIT BREAKER MUST BE OFF.**

2. Remove lid assembly and save for reuse.

3. Remove the two (2) screws securing eyebrow to relay panel and save for reuse.

4. Remove the four (4) screws securing escutcheon to relay panel and save for reuse. **CAUTION:** Utilize care in preventing escutcheon from falling forward when removing these screws. Lower escutcheon slowly until secure in open position.

5. Remove the four (4) screws securing relay panel to side panels and save for reuse. **CAUTION:** Utilize care in preventing relay panel from falling forward when removing these screws. Lower panel slowly until secure (See Figure 36).

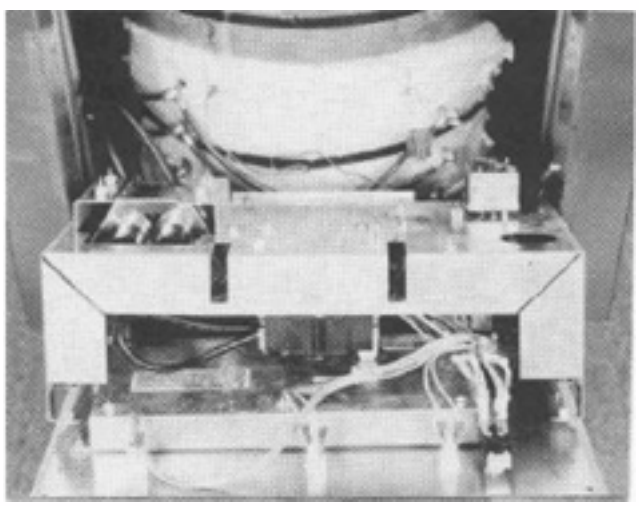


FIG. 36

CAUTION: Utilize care in performing Step 6. Due to location and amount of torque required to remove nuts, wear gloves for protection in the case of wrench slipping.

6. Remove the three (3) nuts securing front block to top of fryer. Remove defective front block.

7. Remove any residue of old silicone sealant from top of fryer.

3. Apply silicone sealant to entire base of new front block and mount on fryer. Place lock washers on bolts end tighten the three (3) nuts securing front block to fryer.

9. Replace the four (4) screws securing relay panel to side panels.

10. Replace the four (4) screws securing escutcheon to relay panel.

11. Replace the two (2) screws securing eyebrow to relay panel and place unit back into service.

REPLACE MAIN CIRCUIT BOARD

Tools: Phillips Screwdriver #2; Nut Driver -11/32”

Procedure:

1. **DANGER:** Turn off electrical power, disconnect electrical power supply, drain shortening and allow to cool. If unit is herdwired, **CIRCUIT BREAKER MUST BE OFF.**

2. Remove the two (2) screws securing eyebrow to relay panel and save for reuse.

3. Remove the four (4) screws securing escutcheon to relay panel and save for reuse. Lower escutcheon slowly until secure in open position.

4. Unplug the 15 pin molex connector from circuit board.

5. Remove the four (4) nuts securing circuit board to esctcheon.

6. **CAUTION:** Pull circuit board back from escutcheon slowly until membrane panel connector strip is visible. Unplug strip from circuit board.

7. Plug strip into new circuit board. **NOTE:** Verify pins in strip align properly with pins in circuit board.

8. Replace the four (4) nuts securing new circuit board to escutcheon.

9. Plug molex connector into circuit board.

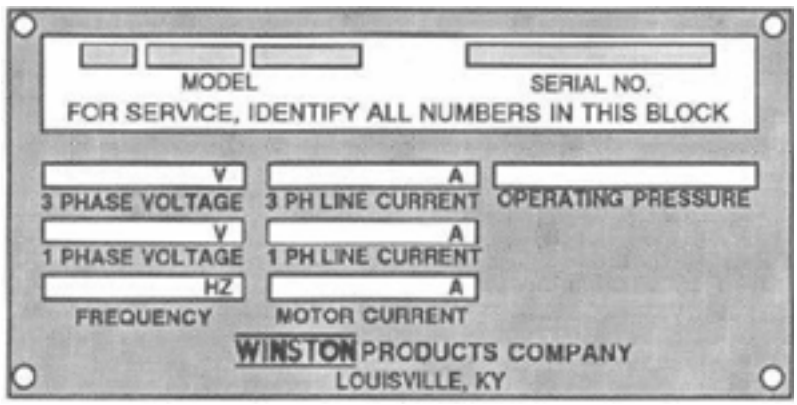
10. Replace the four (4) screws securing escutcheon to relay panel.

11. Replace the two (2) screws securing eyebrow to rolay panel.

NOTE: Progrmming of new circuit board may be required. Verify programming in each channel prior to placing unit back into service.

OBTAINING SERVICE

ALWAYS REFER TO THE MODEL NUMBER AND SERIAL NUMBER WHEN REQUIRING SERVICE OR WHEN PLACING A PARTS ORDER.



Use only genuine Winston Products replacement parts in your appliance. Refer to the parts identification section of this manual to identify the part(s) needed.

PROCEDURES FOR REPLACING NEW COMPONENTS ARE INCLUDED IN THIS MANUAL. FOLLOW THOSE INSTRUCTIONS CAREFULLY.

To order parts or obtain other information, contact:

WINSTON PRODUCTS COMPANY
2345 Carton Drive
Louisville, Kentucky 40299
(502) 495-5400

Customer Service (800) 234-5286